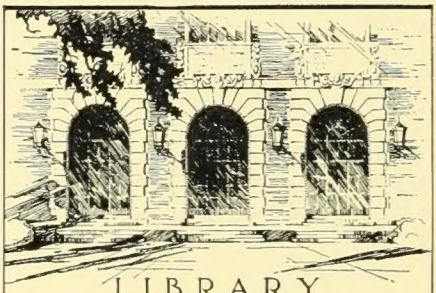

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MEMOIRS

ON THE

COLEOPTERA

BY

THOS. L. CASEY

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I—ADDITIONS TO THE KNOWN COLEOPTERA OF NORTH AMERICA.

The material now available for systematic work almost invariably proves to be inadequately representative, owing to more or less insufficient collecting. I find, in fact, that in certain genera every lot sent in for identification is made up in considerable proportion of hitherto unknown species or subspecies and, so far as my own systematic efforts are concerned, the present opportunity is therefore utilized to make known these nondescripts, in order that knowledge of the various groups may be brought nearer to a status approximating completeness.

There is scarcely any need of further explanation of an introductory character, other than to state that in certain parts of widely distributed groups a mere description, however carefully drawn up, often fails to afford certainty of identification, it being necessary to make direct comparison with types in order to place the matter beyond doubt. This is to be regretted, but prolonged and involved evolution has brought living forms into a condition of toxonomic complexity which renders such a course necessary, excepting in comparatively few cases.

CICINDELIDÆ.

Amblycheila Say

The deep black subalutaceous species of this genus form a rather natural group, probably having a subgeneric status. To the three species already described, a fourth must now be added as follows:

Amblycheila ventricosa n. sp.—Body much more ventricose than in any other species, similar in the deep black color and subalutaceous lustre; head similar, but with the middle of the labrum even more prominently though similarly approximately bilobed; antennæ as in *enodis*, shorter than in *longipes;* prothorax as in the former, the sides less oblique and more rounded than in *longipes;* elytra differing very much, short, barely more than one-half longer than wide, widest at about basal third, the humeri broadly rounded; punctures small and sparse, the surface without trace of subcariniform lines; legs and tarsi somewhat as in *enodis*, shorter than in *longipes*. Length (♀) 20.5 mm.; width 7.6 mm.

A single female from the Huachuca Mts., Arizona.

The four species of this subdivision of *Amblycheila* may be distinguished readily among themselves as follows:

Elytra with moderately coarse impressed punctures, sparse as in the other species, more conspicuous laterally, where there are feeble traces of comminuted raised threads at base [Rivers]. Prothorax scarcely an eighth wider than long, with strongly, subevenly arcuate apex and very moderately oblique, broadly arcuate sides; elytra only three-fifths longer than wide, widest rather before the middle, with rapidly but obtusely rounded humeri, a little more than a third wider than the prothorax and two and a fourth times as long; legs slender, defective in the type. Length (♂) 22 mm. Arizona.
baroni Rivers

Elytra with small, inconspicuous and very sparse punctures, each bearing a minute anterior asperity.....2

2—Elytra with two fine cariniform discal lines at each side; oblique sides of the prothorax feebly arcuate in both sexes. Body notably elongate, the antennæ (♂) fully two-thirds as long as the body; prothorax about a fifth wider than long, broadly, subevenly arcuate at apex; elytra more than three-fourths longer than wide, between a fourth and third wider than the prothorax and nearly two and one-half times as long, widest at the middle; ground sculpture consisting of small shallow and indefinite indentations. Length (♂ ♀) 21.7–23.0 mm.; width 7.0–7.6 mm. Arizona (Baboquivari Mts.)
longipes Csy.

Elytra with a single very fine cariniform sublateral line in about basal half; anterior margin of the prothorax feebly, subangularly prominent at the middle, the oblique sides of the latter evenly but much more strongly arcuate than in *longipes;* antennæ and legs not so long as in the latter species.....3

3—Body notably narrow and elongate, though feebly ventricose; elytra fully three-fourths longer than wide, widest at the middle, two-fifths wider than the prothorax and two and one-half times as long; alutaceous ground smooth, not at all punctulate. Length (♂) 20.0 mm.; width 6.6 mm. Arizona (Garces, Cochise Co.).....**enodis** Csy.

Body relatively shorter and much more strongly ventricose; elytra about one-half longer than wide, widest well before the middle, relatively much more acuminate behind than in *enodis*, about one-half wider than the prothorax and two and one-half times as long, the alutaceous ground with minute but distinct punctures, which are linearly arranged. Length (♀) 20.5 mm.; width 7.6 mm. Arizona (Huachuca Mts.).....**ventricosa** Csy.

These descriptions are all drawn from the original types, that of *baroni* being in the form of a greatly enlarged photograph published in Zoe (IV, plate XXIX, 1893). They all represent distinct species and should not be considered varietal forms. The type of *baroni* is said to have been taken near the Gila River, in Southern Arizona, so that the type localities, as may be noted, are all rather widely separated, with the attending environmental conditions quite different. The disjointed raised threads at the sides of the elytral base are not indicated in the photograph of *baroni*.

Omus Esch.

This genus is comparatively recent geologically and, in conformity with the general rule in such cases, exhibits very marked plasticity, so that nearly every mountain valley of the Pacific coastal regions

has one or more peculiar type-forms or *formas*, as termed by Dr. Blaisdell in treating the genus *Eleodes*, which has very similar peculiarities in these respects.

In the case of *Omus*—very abundant in California and decreasingly so northward to Puget Sound—there are probably over 200 of these derivative forms, the exact interrelationships of which, in the customary nomenclatorial terminology, it is quite impossible to determine definitely at present. So I have merely assigned names to the recently discovered forms, without attempting to fix their exact taxonomic status. It can only be said that when these forms are placed in juxtaposition, nearly all could see that there is a very appreciable difference, always in several respects, although it is well-nigh impracticable to so describe them in words as to render them unmistakably identifiable—that is, in most cases. The only way that this can be done satisfactorily is to give careful outline descriptions and measurements, especially indicating the exact geographic localities; this last being one of the most important of the descriptive elements in the fuller revisions to be given in future years, but unfortunately not always definitely known at present. It is a good deal as in identifying fossil mollusks, for where the exact horizon is given it is generally possible to identify the species, but if the horizon be unknown this would be almost impossible, except in the case of strikingly distinct species.

The following forms, which are very often truly specific in value, are simply compared with those already published, among the latter of which I am unable to discover any actual synonyms, even *lucidicollis*, which I reduced to synonymy in my last work on the genus, proving to be distinct and of a varietal nature, as shown by the male and female at hand, and not by any means a true synonym. The habit of inscribing all subordinate names as undifferentiated synonyms—the method adopted in several modern catalogues—is untruthful and misleading and therefore not conducive to scientific progress.

The two following belong to the *audouini* group of the genus:

Omus audens nov.—Moderately stout and convex, deep black and of moderate lustre; head well developed, with notably convex eyes, the front with shallow sparse rugulæ and deep oblique impressions, between which the punctures are deep, isolated and conspicuous, the epistoma smooth, with two large punctures toward each side; labrum with a prominent, medially truncate lobe; antennæ very moderate and filiform; prothorax but little wider than long, the feebly arcuate sides moderately oblique from apex to base, the side margins not attaining the base; surface smooth, with very feeble ruguliform lines; anterior transverse impression shallow, the surface thence to apex with more distinct transverse

rugulosity; elytra very evenly oval, nearly two-fifths wider than the prothorax, with somewhat coarse separated punctures, the foveæ rather small, not conspicuous; legs slender, moderate. Length (♀) 17.5 mm.; width 6.2 mm. Washington State (Seattle).

Allied to *cephalicus*, but with narrower and less transverse prothorax, more distinct isolated medio-frontal punctures, rather less coarse elytral punctures and more convex eyes, when compared with the female of the latter. From *ambiguus* and *socius* it differs very much in the shorter and more filiform antennæ. *Cephalicus* should be regarded as a species, with *rugipennis*, *tacomæ* and *audens* as subspecies; the last is from a more northern locality than any other known to me, excepting *tacomæ* and *distans*, the former being much the smallest of the four.

Omus socius nov.—Form rather short and stout for this section, deep black, with moderate lustre, the anterior parts alutaceous as in *ambiguus;* head slightly narrower than the prothorax, with sparse feeble rugulosity, scarcely becoming punctiform between the deep oblique impressions, the epistoma smooth, rugulose along its base, having a single puncture at each side, the labrum unevenly, prominently lobed in the middle; eyes moderate but unusually convex; antennæ long, notably thick, distally attenuate; prothorax slightly transverse, the oblique sides moderately arcuate, the margin not quite attaining the base; surface smooth, the lines very feeble, the anterior impression rather sharp and deep; elytra evenly oval, a third wider than the prothorax; punctures coarsely impressed, separated moderately, the foveæ inconspicuous; anterior male tarsi with joints one and three but little narrower than the second; hind tarsi much longer than the tibiæ. Length (♂) 16.3 mm.; width 6.0 mm. California (Shasta Co.). One specimen.

This form is the only one closely associable with *ambiguus*, but it is evidently shorter and relatively broader, with much more convex eyes, coarser elytral punctures and less evenly medio-truncate lobe of the labrum. It is the form which I originally identified as *ambiguus*, because of the very thick, distally attenuate antennæ, but closer observation shows that it differs in its broader and more abbreviated outline, much more convex eyes, stronger elytral punctuation and some other characters. It may be regarded as a subspecies of *ambiguus*.

The species described by Blaisdell and Reynolds under the name *cupreonitens* seems to come in certain features between the *audouini* and *californicus* groups of the genus. The antennæ are rather short—a frequent character in the former group—and the pronotal rugæ are shallow and widely separated. The small and notably sparse elytral punctures, with deep conspicuous scattered foveæ, constitute a prominent feature and, although the lustre of the body is very shining throughout and not quite deep black, it scarcely

merits its name, as the lustre is never decidedly cupreous. The following may be regarded as a subspecies:

Omus reynoldsi nov.—Notably slender, black, very shining, the elytra not metallic; head rather long, barely narrower than the prothorax and with sparse and feeble rugulosity, the frontal impressions deep, oblique; labrum virtually transverse at apex; antennæ rather long, notably slender; prothorax about as long as wide, the sides broadly arcuate, straighter and more oblique posteriad, becoming almost parallel anteriad; base transverse, barely visibly bisinuate; surface with large but feeble rugulosity, the anterior transverse sulcus very deep throughout; elytra narrow, nearly twice as long as wide, the sides gradually converging and in part almost straight from near the middle to the very narrowly rounded humeri; punctures coarse and deep, separated by between once and twice their diameters, the sparse foveæ very large and conspicuous. Length (♂) 12.0 mm.; width 4.4 mm. California (Humboldt Co., Arcata—beach). One specimen.

The single type at hand was included in a large series of *cupreonitens* sent to me by Mr. Reynolds; it stands apart quite distinctly by its narrow form and basally subcuneate elytra. The elytra in the male of *cupreonitens* are evenly oblong-oval, with broadly and gradually rounded humeri.

Besides *californicus*, *latipennis*, *opacipennis*, *vermiculatus*, *sculptilis*, *mimus*, *oregonensis*, *semilucens* and *diminuens*, constituting the *californicus* group, I have now to add the following sixteen forms, all similarly from the coast mountains, this region having been lately much more thoroughly explored than formerly. *Mimus* is still represented by two very slender male specimens from San Francisco, and *sculptilis* by a single male, having very peculiar fine deep and dense pronotal rugulosity. The two following forms are allied to *sculptilis:*

Omus densicollis nov.—Moderately narrow, deep black, with dullish lustre on the elytra, moderately ventricose; head well developed, densely and strongly vermiculate, the rugæ longitudinal between the moderate anterior impressions and along the base of the epistoma; labrum broadly, circularly lobed; eyes moderately convex, the antennæ scarcely half as long as the body; prothorax nearly a fifth wider than long, the sides arcuate, gradually more oblique posteriad, the base nearly truncate; surface with fine, dense and deep vermiculate rugæ, the anterior impression feeble, the rugæ sparser and more longitudinal thence to the apex; elytra oblong-oval, more attenuate posteriad, subtruncate, with evident humeri at base, loosely and not coarsely punctate, with the foveæ indistinct, two-fifths wider than the prothorax and not quite three times as long; legs rather short. Length (♀) 15.0 mm.; width 5.7 mm. California (Mendocino Co.),—Leach.

Differs from *sculptilis* (♂) in the more prominent arcuation of the labrum, partially rugose and not wholly smooth median parts of the epistoma, slightly thicker antennæ, sparser anterior rugæ of the prothorax and smaller and much sparser elytral punctures.

The sides of the prothorax become oblique only nearer the base in *sculptilis*.

Omus argutus nov.—Larger than *densicollis* and less ventricose, with much broader prothorax, deep black, rather dullish in lustre; head more distinctly narrower than the prothorax, but otherwise nearly similar throughout; antennæ thicker than in *sculptilis*, much less than half as long as the body, the fifth joint two and one-half times as long as wide; prothorax nearly a fourth wider than long, widest near anterior third, the sides arcuate, gradually oblique behind the widest section; sculpture vermiculate and dense but much more superficial than in *densicollis* or *sculptilis;* anterior impressed line feeble; median line somewhat as in the latter, much finer and shallower than in *densicollis;* elytra formed nearly as in *densicollis*, scarcely a third wider than the prothorax and nearly three times as long; punctures rather coarse and well separated, with very inconspicuous foveæ; legs longer than in *sculptilis* or *densicollis*. Length (♀) 17.0 mm.; width 6.2 mm. California (Alameda Co.),—Leach.

It is quite evident that *sculptilis* should be regarded as a species, with the two above described attached as subspecies.

The following is a subspecies of *mimus;* the latter should be accorded specific rank:

Omus debiliceps nov.—Notably small in size and very slender, shining, not metallic, the elytra alutaceous; head unusually small, narrower than the prothorax, with eyes rather small, strongly rugulose, the medio-frontal area between the large impressions nearly smooth; labrum almost transversely truncate, the lateral sinuses small and feeble; antennæ slender and filiform, not quite half as long as the body; prothorax not much though sensibly wider than long, the sides parallel and rounded, becoming oblique and nearly straight in about basal half; surface with the deep vermiculate rugulosity rather fine and dense; anterior impression deep; elytra nearly twice as long as wide, scarcely a third wider than the prothorax, oblong-oval, the punctures rather small, notably sparse, well separated even at the sides; anterior male tarsi not very widely dilated. Length (♂) 13.5 mm.; width 4.7 mm. California (San Francisco).

Differs from *mimus* in its still smaller size and narrower outline, decidedly smaller head, smaller eyes and sparser elytral punctures, with similar feebly marked foveæ.

The following four forms may also be regarded as subspecies of *mimus:*

Omus insulsus nov.—Narrow, only moderately convex, shining, deeply and vermiculately sculptured anteriorly, the elytra opaculate, with small, rather sparse punctures and very moderately developed foveæ; head very nearly as wide as the prothorax, with well-developed and very convex eyes, the epistoma sparsely rugose throughout, the labral lobe broadly rounded and distinctly prominent; antennæ slender and filiform, the fifth joint almost three times as long as wide; prothorax but little wider than long, the broadly, evenly rounded sides gradually converging to a broad sinus toward base, the edges fine and attaining the base, which is transversely truncate; anterior line fine, almost obliterated medially; elytra evenly elongate-oval, about two-fifths wider than the prothorax, scarcely two and one-half times as long; legs moderate; anterior male tarsi somewhat strongly dilated. Length (♂ ♀) 13.0–16.0 mm.; width 4.7–5.3 mm. California (Sta Cruz Co.),—Leach.

Recognizable by the deep rugæ covering the entire head, the prominent eyes and other characters, especially the broadly sinuate sides of the prothorax toward base.

Omus modicus nov.—Rather more elongate, similarly deep black, the anterior parts nearly similar in sculpture, which is deeply vermiculate, with the dullish elytra very moderately but rather less loosely punctate; head and labrum nearly similar but smaller, the eyes not quite so prominent; antennæ almost similar; prothorax virtually similar in size but quite different in outline, being strongly rounded at the sides more apically, the sides thence oblique and straight to the base, without trace of sinuation viewed vertically; the strong vermiculation similar, the anterior line fine but rather deeper; elytra almost similar though slightly more elongate; anterior male tarsi moderately dilated. Length (♂) 14.0–14.5 mm.; width 5.0–5.1 mm. California (Mendocino Co.),—Leach. Two male specimens.

Differs much from *insulsus* in having the sides of the prothorax oblique and straight posteriorly, without the sinuation of the preceding form, although this sinus is usually evident from an oblique lateral viewpoint.

Omus stolidus nov.—Shining, black, the elytra a little less shining; outline broader than in either of the preceding; anterior parts deeply and coarsely, but not very densely vermiculate; oblique frontal impressions distinct and nearly similar, the eyes similar; antennæ longer, filiform, the fifth joint three times as long as wide; prothorax slightly wider than the head, the sides arcuate, gradually oblique and straight posteriad; side margins not attaining the base; anterior transverse line deep and acute throughout, the surface thence to the apex with very coarse, well-separated longitudinal rugæ; elytra very evenly oval, broader than in *modicus*, fully two-fifths wider than the prothorax, the punctures rather stronger but not closer, the foveæ more evident; anterior male tarsi with the second joint much wider than the first or third. Female larger and broader than the male, the anterior rugulosity rather denser and less coarse, the prothorax slightly more transverse; elytra more rugosely punctate. Length (♂ ♀) 14.5–16.0 mm.; width 5.6–6.2 mm. California (Mendocino Co.),—Leach.

Easily distinguishable from *modicus* by its broader outline, larger size and rather more elongate antennæ, as well as several other minor characters, such as the deeper anterior thoracic line and more evident elytral foveæ.

Omus subparallelus nov.—More parallel than any of the preceding three or *mimus*, and with relatively much more developed and broader prothorax, as well as more remote elytral punctures; anterior parts closely and deeply vermiculate; head with moderate convex eyes and rather deep anterior oblique frontal impressions; labral lobe moderately prominent, with its apex narrowly truncate; antennæ slender and filiform, the fifth joint two and one-half times as long as wide; prothorax large, slightly though distinctly wider than long, the sides evenly and distinctly arcuate, moderately converging posteriad, the fine side margins attaining the base; anterior incised line deep, but obsolescent medially; elytra narrow, twice as long as wide, oblong-oval, only a fourth or fifth wider than the prothorax, two and one-half times as long; punctures fine and very

sparse, the foveæ moderately distinct; anterior male tarsi well dilated. Length (♂) 14.3 mm.; width 5.1 mm. California (Sta. Cruz Co.),—Leach. One specimen.

This form is almost undoubtedly of specific value; it is very distinct in appearance from the preceding three and others of the *mimus* group.

The following may be placed near the preceding *mimus* group, but has the fine dense pronotal sculpture somewhat as in the *sculptilis* group:

Omus ventricosus nov.—Anterior parts unusually narrow when compared with the hind body, deep dullish black throughout; pronotum rather finely, closely vermiculate, becoming almost smooth along the fine median line; head a little more coarsely rugose, more finely antero-medially, the oblique impressions deep; epistoma in great part smooth, the labral lobe broadly, evenly arcuate and but slightly prominent; eyes moderate but very convex; antennæ unusually long, more than half as long as the body, the medial joints three times as long as wide; prothorax distinctly wider than the head, almost as long as wide, the sides moderately arcuate, a little less so and converging behind the middle; side margins attaining the truncate base, the anterior line feeble; elytra three-sevenths wider than the prothorax, two and one-half times as long, evenly oblong-oval; punctures coarse, slightly separated, the surface somewhat rugulose, the foveæ well developed though not conspicuous; anterior male tarsi well dilated. Length (♂) 14.0 mm.; width 5.4 mm. California (Mendocino Co.),—Leach.

This seems to be a true species; it is of rather small size and peculiar sculpture, long antennæ, ventricose outline and rather dull surface lustre.

The following may stand near *ventricosus*, presumably as a subspecies, but it differs strikingly in the very much coarser and stronger rugæ and the relatively broader anterior parts:

Omus leachi nov.—More shining throughout and broader, the rugæ of the anterior parts coarse, deep and conspicuous throughout, becoming obsolete and finely, sparsely punctulate between the very shallow short frontal impressions; head but slightly narrower than the prothorax, with moderate though very convex eyes, the labral lobe very short, broadly arcuate, separated from the equally prominent sides by feeble sinuses; antennæ not quite half as long as the body, the medial joints about three times as long as wide; prothorax fully a fifth wider than long, the sides very moderately arcuate, slightly more converging in basal half; anterior incised line fine and moderate; elytra oblong-oval, about a third wider than the prothorax, the surface somewhat rugose; punctures coarse and rather close, the foveæ deep but somewhat indistinct; anterior male tarsi dilated as usual. Length (♂ ♀) 13.5–16.7 mm.; width 5.1–6.2 mm. California (Trinity Co.),—E. R. Leach. Four specimens.

There is a good deal of variation in size in this form, the type being much larger and definitely more slender, but in general characters and sculpture they are practically similar throughout.

The following seems to be specifically distinct, having no near analogues to my knowledge:

Omus pullatus nov.—Only feebly ventricose, deep black and moderately shining, the anterior parts rather strongly but not very densely vermiculate throughout; head distinctly narrower than the prothorax, with rather large, strongly convex eyes, the oblique impressions very shallow; labral lobe moderate, medially truncate; antennæ barely half as long as the body, rather thicker than usual, the medial joints slightly less than three times as long as wide; prothorax peculiar, rather large, unusually convex and with the sides evenly and strongly arcuate throughout, more converging basally, the edges attaining the truncate base; median line fine, the anterior incised line distinct; elytra very evenly oblong-oval, rather obtusely angulate at apex, a third wider than the prothorax, the punctures strong but loose, separated by fully twice their diameters discally; anterior male tarsi more broadly dilated than usual. Length (♂) 15.5 mm.; width 5.6 mm. California (Sonoma Co.).

This form stands apart and by itself, so that it cannot be assigned very satisfactorily, but it may be placed with *opacipennis*.

The forms named *vermiculatus* and *latipennis*, which constitute a species under the first name, are distinguished by the sides of the prothorax being oblique from apex to base and very feebly arcuate to nearly straight, giving a peculiar appearance, somewhat as in *edwardsi*. The following is another subspecies of this species:

Omus pollens nov.—Body much larger than in *vermiculatus* and *latipennis*, rather dullish in lustre and deep black as usual, very moderately ventricose, the anterior parts somewhat loosely vermiculato-rugose, the head more strongly than the prothorax; head well developed, slightly narrower than the prothorax, with rather large and prominent eyes, the impressions short and moderate; epistoma obliquely impressed laterally; labral lobe moderate in prominence, very obtusely rounded; antennæ less than half as long as the body, rather thick but with the medial joints about three times as long as wide; prothorax large, a fourth wider than long, the sides evenly, moderately rounded and equally convergent from apex to base, the latter broadly bisinuate, attained by the side margins; median line fine, the anterior incised line fine and feeble, the surface thence to apex with longitudinal rugæ—very fine apically, coarser basally; elytra oblong-oval, more attenuate behind the middle, a third wider than the prothorax, the punctures strong, separated by about twice their diameters discally. Length (♀) 20.0 mm.; width 6.6 mm. California (Marin Co.).

This subspecies is much larger than the two above mentioned, the elytra somewhat similar in shape to those of *vermiculatus*, but much longer and less truncate at base than in *latipennis*. In the type the suture is dehiscent in apical fourth, but this is probably accidental.

Finally the three following forms should be compared with the smaller and more slender *semilucens*, all having the elytral punctures remarkably sparse; they may be placed as subspecies of the true *californicus:*

Omus turbulentus nov.—Rather stout, polished throughout but not metallic, the vermiculate rugæ of the anterior parts coarse, deep and very conspicuous, irregular; head slightly narrower than the prothorax, with somewhat small but convex eyes; anterior impressions moderate but oblique, separated by a strongly rugose surface; epistoma smooth except at base, the labral lobe broad, very slightly prominent medially; antennæ slender but shorter than usual, the medial joints barely two and one-half times longer than wide; prothorax large but abbreviated, nearly a third wider than long, widest near apical third, the sides thence oblique and very feebly arcuate to the base, which is subrectilinear; rugæ transverse along the fine median line, densely confused between the fine feeble anterior line and the apex; elytra oval, ogivally attenuate behind the middle, two-fifths wider than the prothorax and about three times as long; punctures not very coarse but deep, separated by from two to three times their diameters on the disk, the foveæ rather small but distinct. Length (♀) 17.0 mm.; width 6.6 mm. California (Sonoma Co.).

Readily recognizable by the short and very strongly, loosely vermiculate prothorax, shining, oval, posteriorly attenuate and sparsely punctured elytra and rather short antennæ.

Omus æthiops nov.—Form, shining lustre and sculpture almost as in the preceding, but with the elytral punctures not quite so large; head coarsely, deeply rugose throughout, the impressions small and shallow; epistoma broadly, angularly sinuate, the labral lobe very broad, feebly arcuate; eyes very moderate in size and convexity; antennæ rather slender, about as long as the head and prothorax, the fifth joint three times as long as wide, longer than the fourth or sixth; prothorax in outline nearly as in the preceding but still more coarsely and deeply rugose, differing completely, however, in the surface between the less apical and somewhat deeper anterior line and the apex, which is here loosely covered with very deeply incised and longitudinal rugæ; elytra more elongate, less rapidly attenuate behind the middle, similarly evenly oval basally, a third wider than the prothorax and rather more than three times as long, the punctures not quite so coarse and less sparse, the foveæ similar. Length (♀) 16.5 mm.; width 6.3 mm. California (Shasta Co.).

Another very distinct shining species, with loose deep elytral punctures, resembling *turbulentus*, but easily distinguishable by the longer antennal joints and very different sculpture of the apical part of the pronotum; the prothorax is relatively larger.

Omus sparsus nov.—Anterior parts relatively narrower than in the two preceding, more ventricose, shining but with the elytra less so; vermiculate rugæ throughout the head and prothorax uniform and strong but less coarse than in *æthiops;* head narrower than the prothorax, with rather small but strongly convex eyes, the impressions short, feeble and oblique, separated by a closely rugose surface; labral lobe broadly, evenly arcuate and somewhat prominent; antennæ slender, less than half as long as the body, the medial joints not quite three times as long as wide; prothorax a fifth wider than long, with arcuate posteriorly more converging sides, the fine reflexed margin becoming sinuate near the base; anterior incised line distinct laterally but obsolete at the middle; base very feebly bisinuate; elytra oblong-oval and with more distinct humeri than in the two preceding, only three-sevenths wider than the prothorax, convex; punctures small, separated by about three times their diameters on the disk,

still finer and remotely separated at the sides and apex; foveæ small but deep and distinct. Length (♀) 16.5 mm.; width 6.2 mm. California (Sta. Cruz),—E. R. Leach.

Very readily separable from the two preceding by the narrower anterior parts and relatively more inflated and finely, sparsely punctate elytra, also by antennal structure and peculiarities of sculpture.

In regard to *blaisdelli* and *cribripennis*—among the largest of the genus in size—the antero-median surface of the front, between the shallow impressions, is finely and closely rugose, without trace of a puncture in any of my specimens, and the elytra are evenly oval and widest at the middle. In *intermedius* Leng, the median part of the front between the impressions "is smooth and sparsely punctate" and the elytra are described as widest in front of the middle. So *intermedius* is evidently not the same species as *blaisdelli* or the others of this Sierran group. There are two sections of the group, represented by *blaisdelli*, with notably prominent and strongly rounded labral lobe, and *cribripennis*, which has the lobe very broad and feebly rounded, scarcely at all prominent; they may be regarded therefore as specifically different; the following are two subspecies:

Omus torvus nov.—Elongate, very moderately ventricose, dullish in lustre throughout; head distinctly narrower than the prothorax, rugose throughout, as coarsely and deeply between the impressions as elsewhere; labral lobe rather narrow, rounded and very prominent; antennæ rather thick, as in *blaisdelli*, but somewhat less elongate; prothorax as in that species but shorter, fully a fourth wider than long, strongly narrowed basally; surface rather deeply rugose longitudinally between the feeble anterior line and the apex; elytra three-sevenths wider than the prothorax, evenly oval, with moderate and somewhat sparse punctures, the foveæ rather indistinct. Length (♀) 20.0 mm.; width 6.8 mm. California (Lampson's Flat—1800 feet),—Blaisdell—Letcher.

Closely allied to *blaisdelli* but stouter and with shorter prothorax; the antennæ are also thicker.

Omus maurus nov.—Somewhat as in *cribripennis* but smaller and notably more slender, the head almost similar, the medio-frontal surface finely, closely and unevenly rugose; labrum similarly almost truncate, the lobe very short and broad; antennæ notably long, not very slender; prothorax narrower in both sexes, only a fifth or sixth wider than long, finely but rather strongly rugulose, the rugæ denser and more confused than in *cribripennis*, where they are more subtransverse; anterior part similarly finely, longitudinally rugulose, the incised line subobsolete except at the sides; elytra evenly oval, nearly twice as long as wide, two-fifths wider than the prothorax, widest exactly at the middle; punctures strong and close-set but less coarse than in *cribripennis*. Length (♂♀) 17.0–18.5 mm.; width 6.0–6.4 mm. California (El Dorado Co.). Three specimens.

Much smaller and especially narrower than *cribripennis*, the strong elytral punctures not so coarse. The sides of the elytra become more rapidly rounded at base in that species, but here are very gradually rounded basally. *Cribripennis* is from Placerville, but the locality of *maurus* is not given, except as stated. *Intermedius* Leng is from Coulterville, Mariposa Co.

The following is one of the numerous subspecies of *horni*, overlooked till now:

Omus callosus nov.—Short and rather broad, moderately shining, the anterior parts opaculate; head narrower than the prothorax, with well-separated but rather deep rugæ, extending over the entire front, the impressions very shallow; labral lobe somewhat prominent and narrowly rounded; antennæ thick, the joints rapidly narrowed at base, the fifth distinctly less than three times as long as wide; prothorax almost a third wider than long, the sides rather strongly, evenly arcuate from apex to base, which is feebly bisinuate; lateral margins not quite attaining the base; surface with fine but deep rugæ, becoming virtually smooth except toward the sides, apex and base, the anterior line obsolete, feeble at the sides, the median line very fine; elytra short, evenly oval, scarcely over a fourth wider than the prothorax, coarsely and deeply punctate and subrugulose, the punctures separated by their own widths; anterior male tarsi well dilated. Length (♂) 13.8 mm.; width 6.1 mm. California (Tuolumne Co.).

This form may be said to be closest to *horni* and *farctus*, but it is much smaller in size.

Cicindela Linn.

A number of interesting additions have come to light in recent years, mostly varietal as judged by the prevailing concepts, but in most cases not positively determinable as to taxonomic status; all that can be said is that they possess very definite and consistent differences. Those which it seems desirable to characterize at the present time are as follows:

Cicindela montana ssp. **uteana** nov.—Obscure subcupreous-brown, only slightly shining, the sculpture as in *montana*, the coloration not black, as in that species, and the lustre rather duller, the sculpture similar; median pronotal line more deeply impressed; antennæ more metallic. Length (♂) 12.5 mm.; width 5.3 mm. Utah (Provo). Mr. Tom Spalding. One specimen.

The outline is shorter and broader than in *montana*, the elytra barely more than one-half longer than wide, with merely a very fine remnant of the oblique median band. The abdomen is not very feebly metallic as in *montana* but bright blue-green.

Cicindela oslari ssp. **densissima** nov.—Narrower than *oslari* and more convex, subopaque, obscure rufous in color; under surface polished, more or less green; head as in *longilabris;* prothorax obtrapezoidal, nearly one-half wider than long; elytra almost twice as long as wide, with a small humeral and larger post-humeral white spot, the usual well-developed elbowed median band and a posterior mar-

ginal spot, which is prolonged posteriorly along the edge for a short distance; punctures throughout very dense and subconfluent; line of foveæ very feebly developed, almost obsolete. Length (♀) 14.0 mm.; width 5.4 mm. Locality unrecorded—probably Colorado.

Differs from *oslari* in its very much denser elytral punctures, narrower outline and more convex surface.

Cicindela oslari ssp. **estesiana** nov.—Shorter and broader than the preceding, convex, more shining, obscure bronzed in color, dark green beneath, the abdomen black posteriad; head as in all the *longilabris* group; prothorax one-half wider than long, nearly as in the preceding, but with more rounded sides; elytra (♀) scarcely two-thirds longer than wide, narrower (♂), with a fully developed humeral lunule, sometimes resolved into two spots, a well-developed elbowed middle band and a fully developed apical lunule, all white, the apical lunule frequently wanting, except its dilated anterior end; punctures less asperate than in the preceding and well separated—usually by their own diameters; the foveæ of the entire discal line are deep and conspicuous. Length (♂) 13.5, (♀) 14.0 mm.; width (♂) 4.9, (♀) 5.5 mm. Colorado. Three specimens.

Smaller than *oslari*, not at all cupreous but obscure bronze and with much more developed elytral maculation.

Cicindela oslari ssp. **terracensis** nov.—Much narrower and more elongate than *oslari*, rather convex, subopaque and deep black in color; polished under surface blackish, the first two ventrals dark green; head as usual, finely strigilate, the large labrum white, with its median tooth sinuato-truncate; prothorax obtrapezoidal, about one-half wider than long, finely, extremely densely sculptured and opaculate; elytra twice as long as wide (♂), with a large white humeral spot, a small post-humeral spot, a well-defined elbowed median band, somewhat smaller than in the two preceding and *oslari*, and a posterior spot distant from the margin; punctures deep, asperulate and densely crowded or coalescent. Length (♂) 14.0 mm.; width 5.25 mm. British Columbia (Terrace),—Mrs. W. W. Hippisley.

It is highly probable that this should be considered as a distinct species of the *longilabris* group; *laurenti* Schpp. and *ostenta* are also distinct species, so far as I can determine.

Cicindela ostenta ssp. **columbiana** nov.—Form, coloration and coarse sculpture as in *ostenta*, bright green, the outline slightly narrower; head and prothorax nearly similar; elytra with similar markings, except that the middle band is not strongly oblique, its general course being transverse, very feebly oblique internally. Length (♂) 13.0 mm.; width 4.7 mm. British Columbia. One specimen.

The third anterior male tarsal joint is parallel, not obconic as it is in *ostenta*, and the slender hind tarsi are notably more elongate.

The forms *ostenta* and *columbiana* are not to be confounded in any way with the purely Sierran *perviridis* Schpp., as the much coarser sculpture and more shining surface give them a very different appearance. *Placerensis* Csy. seems to be merely a variety of *perviridis*, with shorter prothorax.

Cicindela scutellaris ssp. **billingsi** nov.—Form, coloration and sculpture nearly as in *scutellaris*, but narrower and with longer prothorax; labrum shorter, the three very acute teeth nearly similar but larger, the front edge laterally virtually transverse and not oblique; front even more coarsely strigose but having only few sparse short hairs in the male; antennæ with the fourth joint shorter. Length (♂) 11.0 mm.; width 4.5 mm. Montana (Billings). One example.

To be distinguished readily from *scutellaris* by the nearly bald head in the male and the shorter labrum, with more transverse anterior margin. The antennæ are wholly glabrous in the type, but probably in large part due to accidental causes, as the type has evidently been subjected to rough treatment.

Cicindela shantzi n. sp.—Body nearly as in *scutellaris*, but with the elytra more abbreviated, of a duller coppery hue, similarly alutaceous, feebly punctate and with a rounded white spot near the middle between outer third and fourth, also each with a white apical lunule, which is gradually attenuated externally; labrum with the three teeth smaller and more approximate, together occupying scarcely more than a fourth of the width; strigose front in the male with only very few short hairs, the antennæ nearly glabrous; prothorax with the sides much more nearly parallel from apex to base. Length (♂) 11.7 mm.; width 4.8 mm. Colorado. One specimen.

I do not think that this form can justly be considered otherwise than as a true species of the *scutellaris* series. The true species in this section are represented first by *unicolor*, *carolina* and *nigrior*, second by *scutellaris* and *billingsi*, third by *shantzi*, fourth by *modesta*, *rugifrons* and *lecontei* and fifth by *criddlei*.

Cicindela spaldingi n. sp.—Rather narrow, moderately convex, bright green above and beneath, with many long white hairs beneath and also at the sides of the prothorax, moderately shining; head finely and closely strigilate, bald in the male; labrum white, short and transverse, with a broad truncate median lobe; antennæ rather long, the first joint with a few long white hairs; prothorax a third wider than long, narrowed but little at base; surface deeply impressed, finely and closely sculptured medially, less finely toward the sides; elytra three-fourths longer than wide, the entire sides and apex broadly white, with two small subequal sinuses toward base, broadly dilated at the middle, the dilated part with a short posterior internal lobe, which is very narrowly separated from the broad white margin; punctures strong and close; anterior male tarsi extremely narrowly dilated, narrowly and briefly, very closely clothed beneath. Length (♂) 12.0 mm.; width 4.7 mm. Utah (Callao),—Mr. Tom Spalding.

Allied somewhat to *willistoni*, but with much broader and entire white elytral margins, coarser elytral punctures and apparently very different male sexual characters at the abdominal apex, the sixth segment not being very deeply, angularly incised, as it is in *willistoni*, but convex and with a very minute apical emargination.

Cicindela parowana ssp. **remittens** nov.—Larger than *parowana*, rather less shining and differing in coloration; head green, the entire vertex cupreous;

labrum white, strongly, arcuately lobed, the median tooth narrow, long and aciculate; front closely covered with long whitish hairs, except near the sides; prothorax wholly cupreous, the deep impressions blue, obtrapezoidal, with arcuate sides, two-fifths wider than long; surface closely, subtransversely rugulose, rather shining; elytra parallel, two-thirds longer than wide, the maculation almost exactly as in *parowana*, the punctures not quite so small, sparse, the foveæ of the line subsimilar; posterior tarsi but little longer than the tibiæ. Length (♀) 12.5 mm.; width 4.75 mm. Utah (Callao),—Spalding.

Evidently closely allied to *parowana*, but larger and with cupreous anterior parts and longer, more aciculate median labral tooth. I have only a single specimen, compared with three of *parowana*, where the upper surface throughout is bright shining bluish-green, excepting the maculation.

Cicindela kirbyi ssp. **uintana** nov.—Stouter than *kirbyi* and more blackish, similar in sculpture, blackish throughout above, entirely green to blue-green beneath; labrum and anterior frontal cluster of setæ as in *kirbyi;* prothorax subsimilar, but blackish and more opaque; elytra three-fifths longer than wide, the white markings as in *kirbyi* but very much broader and more conspicuous. Length (♀) 14.0 mm.; width 5.8 mm. Utah (Zion Cañon). One specimen.

Easily separable from *kirbyi* by the stouter form, blacker surface and very broad white markings. The last dorsal plate, exposed beyond the elytra, has a transverse series of four long slender spicules.

Cicindela provensis n. sp.—Form and markings as in *oregona*, the entire surface above and beneath deep blue, sometimes with faint sericeous reflection on a part of the elytra; head very moderate, the labrum white (♂), the base and tip blackish (♀); surface finely, densely strigose, nude, except a small anterior cluster of setæ at each side; prothorax very moderate, transversely obtrapezoidal, finely, densely rugulose, greenish, the deep sulci dark blue; elytra slightly inflated posteriorly, the markings as in *oregona*, the punctures very dense, rather fine and only moderately or feebly asperulate. Length (♂ ♀) 11.0–12.5 mm.; width 4.3–5.2 mm. Utah (Parowan and Provo Cañons). Five specimens from Mr. Spalding.

Quite distinct in coloration from *oregona* and varying a good deal in size.

Cicindela provensis ssp. **mormonella** nov.—Relatively narrower and more parallel than in *provensis* and of an intense uniform green color, metallic bluish, or in part green, beneath; markings similar and as in *oregona*, the upper surface subopaque; labrum wholly white, or with a median apical piceous spot in the female, densely strigilate; front bright green, sometimes cupreous medially and near the eyes; prothorax only feebly obtrapezoidal, sculptured and sulcate as in *oregona;* elytra closely, strongly and asperately punctate throughout. Length (♂ ♀) 10.0–11.5 mm.; width 4.2–4.8 mm. Utah (Eureka, Provo Cañon, Parowan and Vineyard). Six specimens. Mr. Spalding.

Distinguishable from *oregona* by its vivid green color and from *provensis* in color and in its more rectilinearly parallel and more coarsely, asperately punctate elytra.

Cicindela provensis ssp. **nephiana** nov.—Parallel, form nearly as in *provensis* but still narrower, coppery green above and bright blue beneath, rather flatter; head green, bright cupreous along the middle and near each eye, strigilate as in *provensis* and with similarly few setæ at each side; prothorax as in *oregona* but bright cupreous-green, the deep sulci blue; elytra with white markings as in *oregona*, the punctures coarse and asperate but becoming fine and sparse internally toward base. Length (♂) 11.8 mm.; width 4.5 mm. Utah (Parowan). Spalding.

To be distinguished from either of the two preceding by the fine sparse punctures toward the scutellum, and by two regular rows of very coarse punctures lying within the longitudinal impression near the humeri. This form is very closely related to *scapularis*.

Cicindela oregona ssp. **oregonella** nov.—Body much smaller and narrower than in *oregona* and of the same uniform coloration but more black than brownish above, blue beneath, with parts of the sterna and the entire prosternal side-pieces bright coppery; labrum bilobed medially; front minutely and densely rugulose, with a few short hairs laterally; prothorax as in *oregona*, the markings of the elytra similar but much reduced, the outer subapical spot minute, the median elbowed band very fine. Length (♂) 10.7 mm.; width 4.4 mm. Utah (Deer Creek, Provo Cañon). One specimen.

This is smaller than any other species of the *repanda* group, excepting *unijuncta*, which is very small and narrow, not closely related to *repanda* and of fully specific value.

A considerable series from various parts of Utah seems to represent a very feebly differentiated race of *maricopa*, and, of *sterope* I have a large series from Utah and Washington State. The form recently described by Mr. Carr under the name *edmontonensis* proves, from a cotype communicated by the author, to be completely identical with *bucolica*. Two specimens from Utah have almost exactly the size and peculiar outline of *ovalipennis*, but one of them is entirely of a bright green color.

The name *semipicta* seems to be preoccupied and I would therefore substitute *lineoscripta* (n. n.) for it, as it is decidedly different from *dorsalis* in many ways.

Cicindela pacifica var. **nevadiana** nov.—In the notably peculiar subobliterated ornamentation of the elytra, this form almost exactly resembles *pacifica*, the exact status of which is not definitely known, but it is of much smaller size and narrower build, the coloration similar, the abdomen bright yellowish-testaceous; the anterior male tarsi have the three basal joints scarcely thickened, excepting the third, which is a little more than twice as long as wide. Length (♂) 10.3–10.5 mm.; width 3.7–3.8 mm. Nevada (Las Vegas). Mr. Spalding. Two specimens.

The elytra are more parallel and rectilinear at the sides and not so inflated posteriorly as in *pacifica*. Brightly marked specimens, corresponding to *hæmorrhagica*, are also found at Las Vegas.

CARABIDÆ

Elaphrus Latr.

The following species is allied to *cicatricosus* Lec.:

Elaphrus rhodeanus n. sp.—Moderate in width, convex, polished, bright æneous above, feebly cupreous beneath, the abdomen black; legs obscure, the femora bright metallic blue; head with rather small but deep sparse punctures, the middle of the front tumid and bearing a distinct foveiform impression; eyes very large; on a line through their middle separated by much less than twice their width viewed dorsally; antennæ slender, black, feebly cupreous: prothorax short, a fourth or fifth wider than long, the strongly arcuate sides deeply constricted before the base; median line acutely impressed in median third of the length, with deep divaricate impressions from its anterior limit and a large transverse impression at its posterior limit; disk with a deep circular fovea on the median transverse line near outer fourth and two much smaller near the median line; elytra two-fifths longer than wide, the very large foveæ—in the usual positions—very deep, each with two strong arcuate tumid bluish lines, open before and behind, enclosing strong dense punctures, the intervals between the foveæ strongly convex, smooth and polished, with only very few moderate scattered punctures; prothorax beneath with coarse and widely separated punctures. Length (♀) 8.0 mm.; width 3.0 mm. Rhode Island (Boston Neck).

Differs from *cicatricosus* in its more abbreviated form, much shorter prothorax, clearly incised median pronotal line, large lateral pits and more elevated and smoother interstitial spaces of the elytra.

Elaphrus bituberosus n. sp.—Rather narrow, convex, shining and obscure cupreous, except in the foveæ; head green, finely, densely punctate, with a feeble transverse ridge between the eyes; antennæ rather short and thick, blackish; prothorax equal in width to the head, the sides not prominently though distinctly arcuate, moderately and obtusely constricted near the base, nearly as long as wide, almost evenly convex, finely, very closely punctate, bronzed, with a green streak near each side basally; median line feebly impressed, having apically a large elongate tumidity and, near the base, a small strong shining tubercle; elytra nearly one-half longer than wide, feebly inflated except basally, the usual foveæ deep and finely, very densely punctate, red-brown, each with a minute shining central tubercle, the interspaces rather convex, more minutely but not so densely punctulate, a subsutural and more posterior discal spot polished and less punctured; prosternal parapleura finely, densely punctate; femora bright steel-blue, pallid basally, the tibiæ subpallid, dark at tip and the tarsi blackish, the anterior with the first three joints dilated in the male. Length (♂) 6.5 mm.; width 2.75 mm. British Columbia (Terrace). Received from Mr. Frost.

This species is not closely allied to any of the forms near *riparius* and *ruscarius*.

Elaphrus texanus n. sp.—Somewhat closely allied to *ruscarius*, but much broader in the hind body, similar in color and sculpture above, but with the more shining green under surface much more coarsely and sparsely punctured; legs slender, pale testaceous, the femora in apical four-fifths on the anterior, or third on the posterior, metallic green; tarsi metallic green; head almost even, finely, densely punctate; antennæ moderately long, green basally; prothorax almost as

long as wide, about as wide as the head, the rounded sides obtusely constricted near the base; surface rather finely, closely punctate, with fine acute median line centrally, very feeble divaricate anterior impressions and, on each side, a small deep fovea, also near the base a deep oblique impression; elytra barely more than a third longer than wide, much more than twice as wide as the prothorax, inflated, the sides rather sharply sinuate near basal third; sculpture as in *ruscarius*, but with less shallow foveæ and somewhat stronger elevations. Length (♀) 6.3 mm.; width 3.0 mm. Texas (Galveston).

Easily distinguishable from *ruscarius* Say by its more broadly inflated hind body and very different sculpture of the entire under surface.

Elaphrus spissicornis n. sp.—Moderately ventricose, dull above, convex, bright cupreous in color of the body throughout, the femora, tibiæ and tarsi more obscure; upper surface very finely and densely punctate throughout, except the raised polished elytral spaces, which are black, the under surface finely and closely but not so densely punctate, the abdomen nearly smooth; head as wide as the prothorax, the eyes large, the front nearly even in surface; antennæ not as long as the head and prothorax, black, not metallic, except feebly at base; very thick; prothorax a third wider than long, prominently rounded at the sides, the latter parallel and straight in basal sixth or seventh; surface feebly impressed medially, carinulate apically, with a very feeble impression at each side of the middle; elytra two-fifths longer than wide, slightly inflated posteriorly, broadly rounded behind, four-fifths wider than the prothorax and not quite three times as long, with three series of raised shining black areas, separated longitudinally by large and feebly impressed, rather well-defined foveæ, with large and rather more obscure central areolæ, having a minute asperity at the centre; polished spaces of the middle series narrow, the others broad. Length 8.0 mm.; width 3.7 mm. Utah (Parowan—6000 ft. elev.),—Spalding.

Comparable only with *lecontei*, but differing in its pale cupreous coloration and stouter antennæ; these are thicker than in any other species known to me, the penultimate joints being very little longer than wide.

Blethisa Bon.

The following species belongs to the *multipunctata* section:

Blethisa hudsonica n. sp.—A little larger and more elongate than *multipunctata*, shining black, the elytral margins green and the feebly impressed striæ rufous, with the fine punctures green; under surface and legs shining black, the upper surface somewhat metallic; head as in *multipunctata*, the two lateral lines deeper; antennæ similar but evidently longer; prothorax nearly similar throughout but less abbreviated, scarcely over a fourth wider than long; elytra similar in general form and unevenly impressed moderate striation, but with the fine strial punctures much more evident and more close-set; legs (♂) longer than in the male of *multipunctata*, the hind tarsi relatively much shorter than the tibiæ. Length 10.5–12.0 mm.; width 4.2–4.8 mm. Canada (Edmonton, Alberta). A single pair received from Mr. Carr.

Readily distinguishable from *multipunctata* by its larger size, darker coloration, much less abbreviated prothorax and relatively

shorter hind tarsi. From *columbica* it differs in its slightly longer prothorax, finer strial punctures and much larger elytral foveæ, these being as in *multipunctata*.

Nebria Latr.

This genus is very abundantly represented in the colder parts of North America and undescribed forms are continually coming to light; the seven following can be easily recognized:

Nebria pallidissima n. sp.—Moderately ventricose and convex, shining, pale brownish-testaceous, the legs and antennæ still paler; head fully three-fourths as wide as the prothorax, with well-developed and rather prominent eyes; antennæ long and very slender, the third joint two-fifths longer than the fourth; prothorax not quite one-half wider than the median length, the inflated but evenly rounded sides becoming parallel at the very sharp basal angles; base four-fifths as wide as the distinctly sinuate apex, having rather blunt projecting angles; transverse impressions distinct and with feeble loose punctuation, the latero-basal impressions narrow, elongate and sinuate; elytra three-fifths longer than wide, just visibly posteriorly inflated, with moderately arcuate sides, one-half wider than the prothorax; striæ rather fine but impressed, with moderate and well-separated but distinct punctures, the scutellar rather long, free and distinctly punctate, the third with four impressed punctures; intervals not quite flat; anterior male tarsi with the first three joints moderately dilated, closely, briefly and coarsely pubescent beneath. Length (♂ ♀) 9.0–9.7 mm.; width 3.7–4.0 mm. Washington State (Wawawai).

To be placed near *diversa* Lec., but much smaller and relatively narrower, with the strial punctures less coarse and more widely separated and with acutely rectangular hind thoracic angles.

Nebria pugetana n. sp.—Larger, more elongate and subparallel, similar in lustre, coloration and general structure, the head a little larger, with rather more prominent eyes, somewhat more than three-fourths as wide as the prothorax; legs and antennæ very pallid, the latter long and notably slender, the third joint a third longer than the fourth; prothorax nearly similar, the hind angles acute, right; elytra longer and wider, more parallel, almost three-fourths wider than the prothorax, differing in the coarser striæ, which are barely visibly or obsoletely punctulate. Length (♀) 10.0 mm.; width 4.3 mm. Washington State (Wawawai).

Differs from the preceding in its larger, longer and more oblong elytra, having the punctures of the coarser striæ very nearly obsolete; the fourth antennal joint is relatively longer than in the preceding.

Nebria townsendi n. sp.—Much larger and broader, shining and pale brown; legs pale, the antennæ very pale gradually toward base; surface only moderately convex; head large, fully three-fourths as wide as the prothorax, the eyes somewhat smaller but very prominent; antennæ long though slightly less slender, the third joint two-fifths longer than the fourth; prothorax larger and broader, nearly three-fifths wider than its median length, formed and sculptured nearly as in *pallidissima*, but with the lateral margins less broadly reflexed apically;

hind angles sharply rectangular; elytra shorter and much broader, oval and without humeral angle, only two-fifths longer than wide, nearly one-half wider than the prothorax; striæ rather coarse, deeply impressed, very feebly and indistinctly punctate, the third with four or five punctures in apical half, the fifth with two or three punctures; intervals broadly convex; scutellar stria long, free. Length (♀) 11.0 mm.; width 4.8 mm. Washington State (Port Townsend).

This species differs very much from either of the preceding in its larger size, broader form, slightly less slender antennæ and different foveation of the deeper elytral striæ; from *diversa* it differs in the deeply sinuate sides of the prothorax at base, with sharply rectangular angles.

Nebria corvallis n. sp.—Form and structure nearly as in *oregona*, but narrower, shining black, the anterior parts feebly picescent, the legs piceous; head about three-fourths as wide as the prothorax, with moderate but remarkably convex eyes, the anterior impressions feeble and diffuse; antennæ piceous, slender, the third joint nearly one-half longer than the fourth; prothorax a little over one-half wider than long, moderately inflated, with evenly rounded sides, these oblique and straight in basal half to the very sharp basal angles, which are notably more than right; surface smooth, the lateral impressions in basal two-fifths and transverse ante-basal impression all deep and very feebly rugulose; anterior impression distinct, the median line broadly, deeply impressed; elytra nearly two-thirds longer than wide, very slightly wider posteriad; striæ deeply impressed, rather coarsely but feebly punctate, the third feebly tripunctate, the two posterior punctures more approximate; anterior male tarsi with the first three joints very moderately dilated, clothed beneath as usual. Length (♂) 10.0 mm.; width 4.0 mm. Oregon (Corvallis).

Distinguishable from *oregona* by its slightly smaller size, notably narrower form, smaller and very much more convex eyes and several other features.

Nebria curtulata n. sp.—Oblong, only feebly convex, shining black, the elytra feebly picescent, the pronotal sides nubilously and feebly pallescent; legs and antennæ piceous; head barely two-thirds as wide as the prothorax, with well-developed convex eyes, the anterior impressions deep and rounded; antennæ slender, the third joint a third longer than the fourth; prothorax short, rather more than three-fourths wider than long, the rounded dilated sides convergent and gradually distinctly sinuate posteriad, the angles right and sharp; transverse ante-basal impression deep, with the bottom punctate, the lateral impressions very short, the subapical deep, obtuse and angulate, with the apical surface feebly punctulate; impressed median line fine; elytra parallel, three-fifths longer than wide, about a third wider than the prothorax; striæ shallow, unevenly and rather indefinitely punctate, the third with one fine and three strong punctures; anterior male tarsi with three rather well-dilated joints. Length (♂ ♀) 8.5 mm.; width 3.3–3.5 mm. Labrador (W. St. Modest),—Sherman.

The three specimens of this species were mixed in my series with *labradorica*, but it is a smaller, shorter and flatter form, with shorter and much more transverse prothorax, and could not fail to be recognized when properly segregated.

Nebria hippisleyi n. sp.—Moderately broad and slightly convex, shining, the body and legs piceous; head three-fourths as wide as the prothorax, with moderate but very convex eyes, the anterior impressions large, very shallow and indefinite; antennæ long, slender, testaceous, the third joint two-fifths longer than the fourth; prothorax not quite one-half wider than long, the rounded sides gradually oblique posteriad, nearly straight, becoming only just visibly sinuate and only very near the sharp angles, which are scarcely more than right; impressions broad and shallow, only feebly punctulate, the latero-basal narrow, oblique and deeper; median line fine; elytra very feebly inflated posteriorly, three-fourths longer than wide, nearly one-half wider than the prothorax; striæ rather fine, shallow, finely, very indefinitely punctulate, the third with five or six small impressed punctures; first three joints of the anterior male tarsi very moderately dilated, the first as long as the next two. Length (♂) 11.0 mm.; width 4.5 mm. British Columbia (Terrace).

The single specimen was sent to me by Mrs. W. W. Hippisley; it represents a species allied to *transversa*, but with rather smaller and more prominent eyes, smooth or much less punctate apex and base of the pronotum and especially in having the oblique thoracic side margins very much less sinuate, also in the piceous legs.

Nebria fragilis n. sp.—Shining, black, the tibiæ and tarsi blackish-piceous; head two-thirds as wide as the prothorax, smooth, shorter than wide, the eyes prominent; antennæ very slender, obscure rufous, evidently more than half as long as the body, the fourth joint three, the fifth four, times as long as wide; prothorax very nearly one-half wider than long, the sides broadly arcuate, converging moderately posteriad, becoming parallel in basal sixth or seventh, the basal angles right and sharp; sides somewhat widely reflexed and punctulate, the base loosely punctate; lateral basal impressions oblique and distinct; transverse impressions almost obsolete, the median incised line distinct, biabbreviated; elytra three-fourths longer than wide, widest posteriorly, obtusely rounded at apex, a third wider than the prothorax, smooth, the striæ rather fine, impunctate, the third with three small punctures; intervals nearly flat; legs very slender, the hind tarsi longer than the tibiæ; first three joints of the anterior male tarsi very moderately dilated. Length (♂) 8.5–8.8 mm.; width 3.4–3.6 mm. Utah (North Fork, Provo Cañon),—Spalding. Two male specimens.

This small delicate species may be placed near *arkansana*, but is obviously broader in outline, with smooth and not punctulate striæ and somewhat less narrowly reflexed sides of the prothorax.

Mr. Spalding collected a large series of a *Nebria*, which may be called *trifaria* Lec., but if this is true the description of Leconte is rather inaccurate. *Trifaria*, which was taken in American Fork Cañon, Utah, is said to have the head, with eyes, scarcely narrower than the prothorax, while in the Utah specimens taken by Spalding at North Fork, Provo Cañon, the head, with the eyes, is often only three-fourths as wide as the prothorax.

Of *virescens* Horn., I have a single example from Philomath, Oregon; it is larger and less abbreviated than *brevis* Csy., but of the same coloration; the prothorax is much less transverse as inferrable indeed from the original description.

Irichroa Newm.

The form described below seems to be allied closely to *andrewsi:*

Irichroa andrewsi ssp. **reflexa** nov.—Strongly ventricose and convex, shining and very deep violaceous-blue, the legs and under surface black; head nearly similar in structure but distinctly more than half as wide as the prothorax, the latter fully as long as wide, the sides angulate at anterior two-fifths, thence rounded to apex and oblique and straight to base, which is minutely emarginate at the middle, the basal angles broadly rounded; side margins broadly and strongly reflexed, the setigerous tubercle at the angulation conspicuous; surface sculptured much as in *andrewsi;* elytra oblong-oval, coarsely, deeply and closely striato-punctate, the intervals subeven throughout, a few posteriorly bearing coarse punctures. Length (♀) 21.0 mm.; width 8.8 mm. North Carolina (Black Mts.). Beutenmüller.

Larger, stouter and more blackish than any of the series which I have referred to *andrewsi*, and especially with broader head and longer prothorax; the sides of the prothorax are conspicuously reflexed when compared with most of the forms in *Irichroa.*

Of *amplicollis* I now have two examples; the female has the prothorax relatively a trifle smaller than in the male type, but of almost identical outline throughout.

Bembidion Latr.

A considerable number of new species and subspecies belonging to this unwieldy genus have appeared from time to time as follows —many of them taken by Mr. Nunenmacher:

Bembidion (**Odontium**) **tacomæ** n. sp.—Body elongate-oval, rather convex, shining, bright cupreous, the pronotum gradually duller toward the sides, the sides of the elytra and two large quadrate impressed inner spots on each dull greenish and granulose; head feebly shining, narrower than an elytron, the lateral grooves deep; antennæ slender, black, non-metallic; prothorax but little shorter than wide, the parallel sides broadly arcuate, constricted near base, the angles everted and sharp though right, not carinate; lateral basal foveæ moderate but deep; stria coarse, deep and almost entire; elytra three-fifths longer than wide, nearly three-fourths wider than the prothorax, the parallel sides nearly straight, rounding basally; striæ distinctly and closely punctate, the third and fourth most widely separated, the latter but feebly sinuose; under surface with feeble greenish-metallic lustre, the slender black legs feebly metallic, the femora not paler at base. Length (♂) 5.8 mm.; width 2.25 mm. Washington State (Wawawai).

Allied to *hesperium* Fall, but larger and more elongate and differing greatly in the coloration of the legs, the femora in that species being pale, gradually black distally.

Bembidion (**Odontium**) **zephyrum** ssp. **tristiculum** nov.—Form, outline and general characters nearly as in *zephyrum*, but dull black and without any form

of metallic lustre throughout; head large, very nearly as wide as an elytron; prothorax very short, fully four-sevenths wider than long, deeply constricted near the base, the sides thence diverging to the sharp angles, which are however right; surface polished, deep black, gradually opaque toward the sides and at base; elytra three-sevenths longer than wide, the lustrous and opaque parts as described in *zephyrum*, without any differences in coloration, the fourth stria not distinctly sinuous. Length (♂) 5.7–5.85 mm.; width 2.45 mm. Southern Oregon,—J. F. Kemp.

The types of this form served as the basis of my conception of *zephyrum* Fall, described from Humboldt Co., Calif., but it seems to differ not so much in coloration—as the types may have the unnatural black condition occasionally met with in this subgenus and *Ochthedromus*—as in the shorter and laterally more deeply constricted prothorax. It differs from *carinula* Chd. in the less abrupt constriction before the basal thoracic angles and in the longer antennæ.

Bembidion (Odontium) marginosum n. sp.—Body broad and oblong, broadly convex, blackish, the densely granulose areas as in *zephyrum*, but dark green, each surrounded by a fine cupreous border, the non-granose parts of the elytra distinctly embossed, smooth, but not highly polished and nearly black in color; head short, distinctly narrower than an elytron, the antennæ slender, black and non-metallic; mentum tooth truncate, convex, long and rectilinearly parallel (♂), or shorter, broader and less parallel (♀); prothorax not quite so short as in the preceding though evidently somewhat more than one-half wider than long, the sides only feebly and broadly constricted near base, becoming feebly divergent; surface with loose transverse rugulation, a small part of the basal margin at the middle more closely, longitudinally strigose; elytra oblong, three-sevenths (♀) or nearly one-half (♂) longer than wide, the fourth stria but feebly sinuose; discal spots very large; under surface shining, with feeble greenish lustre, the legs black, the femora pale at base. Length (♂ ♀) 5.85–6.25 mm.; width 2.45–2.75 mm. California (Del Norte Co.). Nunenmacher.

This species is rather closely allied to *zephyrum*, but is somewhat larger and with the impressed granulose elytral areas all surrounded by a narrow bright cupreous border. I cannot perceive that the reflexed side margins of the pronotum are wider anteriorly or with the surface there subexplanate; just within the basal thoracic angles there is a very short fine carinule, the basal impressions small.

Bembidion (Odontium) carrianum n. sp.—Rather broadly oblong, the minutely granulato-reticulate regions of the elytra as in *zephyrum*, opaque and green, not at all margined, the smooth shining areas slightly embossed and dull cupreous; under surface dark polished green, the legs metallic black, the femora rather abruptly pale in nearly basal half; head opaculate, almost as wide as an elytron, the dark antennæ very slender; prothorax one-half wider than long, the arcuate sides finely and equally reflexed, moderately sinuate at base; surface with loose transverse rugulæ, shining, subcupreous, gradually opaculate laterally but not at base; elytra not quite one-half longer than wide, somewhat over one-half wider than the prothorax, oblong; striæ finely, closely punctate, the fourth strongly

sinuate at basal fourth, the fifth interval just behind the middle, scarcely more than one-half as wide as at the sinus. Length (♂ ♀) 5.0–5.8 mm.; width 2.15–2.45 mm. Canada (Edmonton, Alberta),—F. S. Carr. Three specimens.

A very interesting and distinct species of the *zephyrum* type, but with a sharply marked sinus in the fourth elytral stria opposite a marked dilatation of the fifth interval. The mentum tooth in the female type is narrow, with feebly oblique sides and truncate apex.

Bembidion (Ochthedromus) ferreum n. sp.—Body short, moderately convex, slightly shining, strongly micro-reticulate, greenish-black, more or less cupreous in the pronotal impressions, smooth beneath, the legs greenish-metallic, the coxæ pale; head not quite as large as in *bifossulatum*, as wide as an elytron, three-fourths as wide as the prothorax, opaculate, with moderate grooves, the eyes notably large; antennæ long, wholly black, the medial joints two and one-half times as long as wide; prothorax as in *bifossulatum* but not so shining; elytra broader, barely one-half longer than wide, parallel, the sides rounding at base, broadly rounded behind, the striæ broadly and strongly impressed, strongly and closely punctate, entire, the foveæ very large—just before the middle and near apical fourth. Length (♀) 7.0 mm.; width 3.0 mm. Utah (Iron Co.).

On comparing the female type with the female of *bifossulatum*, it is to be noted that *ferreum* is much broader in form, with less slender but somewhat longer antennæ and coarser and more impressed elytral striæ. The mentum tooth is oblique at the sides, evenly convex and with the truncate apex somewhat binodulose, while in *bifossulatum*, though similar in outline, it is convex axially but not apically and has the apex more evenly truncate.

In *Hydrium lævigatum* Say, there seem to be two slight modifications, perhaps depending to some degree on the habitat—whether to the east or west of the Appalachians. All of my material is from various sections to the west of the mountains, but my only Pennsylvania specimen—a male—is apparently rather below the average of the western examples and has a different prothorax; I therefore venture to call attention to these differences as follows:

Bembidion (Hydrium) lævigatum ssp. **delawarense** nov.—Similar to *lævigatum* in every way, except that the body is slightly narrower and the prothorax barely one-half wider than long; in *lævigatum* it is always distinctly more than one-half wider than long. Length (♂) 5.7 mm.; width 2.2 mm.

It never occurred to me before to notice that virtually all my material in *lævigatum* was taken west of the Appalachians. The slight differences that appear are observable, however, in many other species of wide distribution, the mountains evidently having a noticeable effect as a barrier affecting specific evolution.

Bembidion (Eudromus) edolatum n. sp.—Oval, convex, highly polished, black, strongly æneous, bluish along the sides, black beneath, the legs black;

head moderate, rather narrower than an elytron, with large but only moderately convex eyes, the two frontal channels narrow; antennæ black, the first joint testaceous beneath, the medial joints slightly over twice as long as wide; prothorax very nearly one-half wider than long, the parallel sides broadly, very moderately arcuate, becoming gradually straight and parallel for a considerable distance before the right basal angles; apex very feebly sinuate; impressions obsolete, the stria extremely fine, not entire; basal foveæ smooth, rather long, linearly impressed, the carina somewhat long and strong; elytra oval, three-sevenths longer than wide, barely a third wider than the prothorax; striæ very fine, unimpressed, not entire, only the first four and base of the fifth evident as series of very fine separated punctures; foveæ small and very feeble, on the third interval near the third stria. Length (♂ ♀) 4.6–4.8 mm.; width 1.7–1.85 mm. Minnesota (Duluth). Three specimens.

This is the species that in my revision I assumed to represent *nitidum* Kirby. At that time I had not seen the original description of Kirby, but lately have acquired the descriptions of the Insecta of the Fauna Boreali-Americana, edited by the Entomological Society of Ontario, and there I find under *nitidum*, the length of 3.2 lines (6.4 mm.) given for that species, which of course makes the identity of *edolatum* with *nitidum* impossible. This length of body coincides with that of *obliqulum* Lec., which, as formerly maintained, therefore becomes a synonym or variety of *nitidum*. I have a large series of this species from Washington State to northern California, one specimen of which—from Josephine Co., Oregon—is much broader than any other, with somewhat larger head and longer antennæ, the medial joints of which are three times as long as wide to rather more; this variation may be called *B. josephineum* (n. var.); it is 6.65 by 2.5 mm. in dimensions.

Bembidion (Lionepha) perbrevicolle n. sp.—Oblong, moderately convex, highly polished, black, with very feeble metallic lustre, the legs nearly black, the reflexed elytral margins pallid posteriorly; head smooth, as wide as an elytron, the lateral grooves distinct; antennæ blackish, about half as long as the body, the medial joints fully twice as long as wide; prothorax short, fully one-half wider than long, the rounded sides oblique from about the middle, not sinuate basally, the hind angles sharp and about right; surface very smooth, the transverse impressions very feeble, the fine stria extending between them; lateral basal impressions large and deep, the carina fine but distinct; elytra oblong, parallel, about one-half longer than wide, not quite one-half wider than the prothorax; striæ fine and feebly impressed, with fine but distinct and well-separated punctures, obsolete near the apex, the foveæ near basal and apical third. Length (♀) 3.4 mm.; width 1.25 mm. California (Placer Co.).

Allied to *seclusum* but smaller, with much shorter prothorax, less metallic lustre, pale posterior elytral side margins and numerous other differential characters.

Bembidion (Lionepha) improvidens n. sp.—Body notably small, not very convex, slightly flattened on the elytra inwardly, polished black, with scarcely

metallic lustre, the legs black; head fully as wide as an elytron, smooth, with deep grooves; antennæ piceous, slender, the fifth joint two and one-half times as long as wide; prothorax not quite one-half wider than long, the arcuate sides oblique posteriad, becoming gradually and feebly sinuate toward the sharp right angles; surface very smooth, the anterior impression fine but evident, the posterior feeble, the stria deeply impressed, ending at the base and anterior impression; basal impressions large, shallow and opaque, the carina fine but distinct; elytra oblong, parallel, obtusely ogival in about apical third, a little more than one-half wider than the prothorax, without pallid reflexed edges, the striæ very fine but sharply distinct, equal and perfectly entire, impunctate, the foveæ small, near two-fifths and four-fifths. Length (♂) 3.5 mm.; width 1.23 mm. California (Placer Co.).

Not at all closely allied to any other species, but it may be placed near the preceding, differing in many ways, such as the narrower prothorax and finer entire and impunctate striæ; these striæ are much finer than in any species of *Micromelomalus*.

Bembidion (Trechonepha) expansipenne n. sp.—Form ventricose, moderately convex, shining black, with blackish-piceous elytra, the legs blackish, very slender; head smooth, with broadly impressed grooves, much narrower than an elytron; antennæ slender, blackish, distinctly more than half as long as the body, the medial joints nearly three times as long as wide; prothorax relatively narrow, only a fourth or fifth wider than long, the arcuate parallel sides gradually sinuate behind, straight and parallel for some distance before the sharp right angles; transverse impressions very feeble, the stria subentire but deep only between the impressions; basal foveæ large, concave and subopaque, the carina distinct and rather long; elytra broadly oval, less than one-half longer than wide, three-fourths wider than the prothorax; striæ fine but sharp and entire, impunctate, the foveæ strong, just before the middle and near apical fourth. Length (♀) 4.8 mm.; width 2.2 mm. California (Siskiyou Co.),—Blaisdell.

May be placed near *trechiforme*, but with relatively narrower anterior parts and broadly oval elytra. It was identified as *mäklini* by Dr. Blaisdell, but does not answer the description of that Alaskan species at all well.

Bembidion (Trechonepha) essexense n. sp.—Oblong-suboval, only moderately convex, shining, black, the elytra piceous-black, the legs obscure testaceous, with blackish femora, which are more pallid at apex; head smooth, with rather broadly excavated furrows, much narrower than an elytron; antennæ slender, blackish, more than half as long as the body, the medial joints between three and four times as long as wide; prothorax very much wider than the head, nearly one-half wider than long, the strongly rounded sides more oblique in about basal half, becoming only very feebly sinuate nearly at the angles, which are right and sharp; surface smooth, with almost obsolete transverse impressions, the stria fine but deep, only extending between the impressions; basal impressions only moderate, slightly rugulose and sublinear, the carina rather long, distinct; elytra oblong-oval, one-half longer than wide, more than one-half wider than the prothorax; striæ rather fine but well impressed, entire and very finely and sub-obsoletely punctulate, the fifth more coarsely impressed for a short distance at base; foveæ strong, with long distinct seta, at three-sevenths and three-fourths. Length (♂) 3.9 mm.; width 1.5 mm. New York (Keene Heights, Essex Co.).

A single example was sent to me by Mr. Notman under the name *simplex* Hayw., but there is a recognizable though short and shallow basal sinus at the sides of the prothorax and the base is if anything wider, not narrower, than the apex; the antennæ are longer and the transverse pronotal impressions are nearly obsolete, not at all "distinct," and the hind angles are right, not "obtuse." The elytra appear to be more inflated. In typical form *simplex* occurs in Labrador. This species does not belong near *planiusculum*.

Bembidion (Trechonepha) notmani n. sp.—Oblong-oval, moderately convex, shining, greenish-black, the elytra piceo-testaceous, the legs dark rufous; head wider than long, much narrower than an elytron, the grooves deep and abrupt; antennæ long, slender, piceous, with paler basal joint, the medial joints more than three times as long as wide; prothorax nearly one-half wider than long, the parallel sides broadly arcuate, gradually sinuate posteriad, becoming straight for a fifth the length, the angles right and not rounded; surface smooth, with very obsolete transverse rugulosity, the transverse impressions almost obsolete, the impressed stria extending from the anterior to the base, the basal impressions large, slightly rugose, linearly deeper at the bottom, the carina long and distinct; elytra oblong-oval, scarcely more than one-half wider than the prothorax; striæ entire, feebly impressed, minutely, closely and indistinctly punctulate, the fifth broadly impressed at base; foveæ distinct, near three-sevenths and four-fifths. Length 4.3 mm.; width 1.85 mm. New York (Keene Heights, Essex Co.).

The single type sent by Mr. Notman is of undetermined sex; it represents a species allied somewhat to the preceding but larger, with broader head and very much less arcuate sides of the prothorax. It was sent to me under the name *planiusculum*, but it evidently cannot be that species.

Bembidion (Micromelomalus) carolinense n. sp.—Depressed, shining, greenish-black, the elytra piceo-rufous; legs blackish, the femora pallid basally; head much narrower than an elytron, the longitudinal impressions opaque and very broadly excavated, the two separated by a narrow shining ridge; antennæ blackish, not very slender, more than half as long as the body, the basal joint but slightly paler, the medial three times as long as wide; prothorax nearly one-half wider than long, the parallel sides rather strongly arcuate, gradually oblique behind the middle, becoming feebly sinuate, then straight and parallel in nearly basal fifth, the angles right and sharp; surface finely, transversely rugulose, the transverse impressions almost completely obsolete, the strongly impressed stria extending from base very nearly to the apex; basal impressions large, rugose and very shallow, the carina long and conspicuous; elytra barely two-fifths longer than wide, fully two-thirds wider than the prothorax, very obtusely rounded behind, the striæ impunctate and entire, strongly and broadly impressed, becoming fine and shallow externally; surface flattened internally, the strong foveæ near three-sevenths and four-fifths. Length (♂) 3.6 mm.; width 1.6 mm. North Carolina (Black Mts.). One example.

This, *basicorne* Notm., and the following, are the only three species of the present subgenus that are known by me to have been taken near the Atlantic coast; they are peculiarly characteristic

of the Pacific coast fauna. *Carolinense* differs from *basicorne* in its smaller size, less slender antennæ, less arcuate sides of the prothorax and stronger elytral striæ, these becoming obsolete in outer half in *basicorne*.

Bembidion (Micromelomalus) keeneanum n. sp.—Subparallel, depressed, shining black, the elytra with scarcely visible piceous tinge; legs piceous-black, rather short; head about as wide as an elytron, the impressed grooves deep and separated by a broad polished surface; antennæ blackish, not paler at base, nearly half as long as the body, the medial joints a little less than three times as long as wide; prothorax slightly less than one-half wider than long, the rather strongly arcuate sides becoming straight and parallel for a short distance at base; surface with a few transverse rugulæ medially only, the anterior transverse impression fine but rather sharp, the posterior almost obsolete, broadly impressed stria extending only between the two; basal impressions rather smooth, deep and rounded, the carina long and distinct; elytra somewhat more than one-half longer than wide, slightly less than one-half wider than the prothorax, gradually evenly rounded behind; striæ deep, broadly impressed, impunctate, fine but distinct externally; anterior fovea strong, near two-fifths, the posterior smaller and at apical fifth or sixth. Length (♀) 3.25 mm.; width 1.3 mm. New York (Keene Heights, Essex Co.),—Notman.

Distinguishable easily from *carolinense* by the structure of the upper surface of the head, shorter antennæ and other features and, from *basicorne*, by the distinct outer striation of the elytra, smaller size, shorter and differently colored antennæ, smaller size and other characters.

Bembidion (Micromelomalus) placeranum n. sp.—Oblong, depressed, polished, deep black throughout, the legs black, rather short; head moderate, scarcely as wide as an elytron, the grooves moderate, widely separated; antennæ black throughout, short, distinctly less than half as long as the body, the medial joints scarcely twice as long as wide; prothorax short, four-sevenths wider than long, the moderately arcuate sides oblique and straight posteriorly to the angles, which are minutely prominent; surface feebly, transversely rugulose only very near the impressed stria, which extends only between the subobsolete impressions; basal impressions large, shallow, sublinearly deeper near the base, the carina distinct, moderately long; elytra not quite one-half longer than wide, ogival in about apical third, scarcely one-half wider than the prothorax, the striæ rather fine, feebly impressed internally, fine but distinct externally, entire, not distinctly and somewhat unevenly subpunctulate; foveæ small, near two-fifths and three-fourths. Length (♀) 3.2 mm.; width 1.2 mm. California (Placer Co.).

The type represents a species somewhat resembling *timefactum*, but with broader and relatively shorter prothorax and shorter elytra, the latter having the striæ less impressed.

Bembidion (Trachelonepha) sierricola n. sp.—Notably elongate but with oblong-oval elytra, deep black throughout and shining, the legs black; head distinctly narrower than an elytron, with rather prominent eyes, the grooves deep, separated by a rather wide convex surface; antennæ long, four-sevenths as long as the body, entirely black, the medial joints three times as long as wide;

prothorax scarcely over a fourth wider than long, the base somewhat narrower than the apex, the distinctly arcuate sides becoming parallel for some distance at base, the angles right and sharp; surface with feeble loose rugulosity, the anterior impression rather sharp and distinct, the posterior subobsolete, the stria subentire but very fine toward apex and base; basal impressions large, rugulose, moderately concave, the carina long, moderate; elytra four-sevenths longer than wide, gradually rounding behind, three-fourths wider than the prothorax, the striæ entire, somewhat deeply impressed and subpunctulate, the outer evident though very fine and smooth; foveæ moderate, at about two-fifths and four-fifths. Length (♀) 4.7 mm.; width 1.6 mm. California (Nevada Co.).

Much smaller than any one of the other four species of this subgenus and with a smaller head and more oval elytra.

Some years ago Dr. Blaisdell sent me a representative each of *vandykei* and *falsum;* they were both taken at the same time and place in Humboldt Co., and whether rigorously correct identifications I have no way of proving. At any rate, they are both distinct from *electum* and *extensum* respectively, *electum* differing from *vandykei* in its broader elytra and larger head, and *extensum* differing from *falsum* in its longer testaceous elytra and pallid legs; there are of course many other differences. The group, with discovery of more species, proves to be clearly separated as a subgenus.

Bembidion (Peryphus) marinianum n. sp.—Strongly convex, polished, greenish-black, the legs dark rufous; head as wide as an elytron, the grooves rather narrow, the front broadly convex, polished; antennæ four-sevenths as long as the body, slender, blackish, the first joint paler, the last unusually long, the medial joints obconic, nearly two and one-half times as long as wide; prothorax fully a fourth wider than long, the base narrower than the feebly sinuate apex; sides strongly arcuate, subparallel for some distance before the basal angles, which are very sharp though slightly more than right; surface very smooth and convex, the stria entire, the impressions feeble; basal impressions linear or oval and very deep, the carina fine, moderate in length; elytra suboblong-oval, not quite one-half longer than wide, scarcely one-half wider than the prothorax, without impressed striæ but with series of strong punctures, well spaced and becoming extinct in about apical third; foveæ moderate, near basal and apical third. Length (♀) 3.7 mm.; width 1.35 mm. California (Marin Co.).

Allied to *californicum* Hayw., of which I have a specimen from Sta. Anna Cañon, one of its typical localities; it is confined to the far southern part of the state and differs from *californicum* in its much less slender outline, blacker antennæ, which are pale only in the first joint and not gradually paler basally, in its broader prothorax and in having the elytral series more extended posteriorly.

Bembidion (Peryphus) modocianum n. sp.—Convex, polished and deep black throughout, the legs black; head scarcely as wide as an elytron, polished, with moderate grooves; antennæ black throughout, slender, half as long as the body, the medial joints between two and three times as long as wide; prothorax very nearly one-half wider than long, the base and apex equal, the sides arcuate,

becoming very gradually and feebly sinuate basally, the angles somewhat more than right; surface with very feeble rugulæ medially, the impressions feeble, the stria biabbreviated; basal impressions oval and deep, the carina fine; elytra oblong, parallel, gradually rounding in about apical third, four-sevenths longer than wide, one-half wider than the prothorax; striæ scarcely at all impressed, becoming fine and subobsolete at apex but entire, the punctures rather strong, moderately separated, the foveæ feeble, near basal and apical third. Length 4.0–4.4 mm.; width 1.35–1.55 mm. California (Modoc Co.),—Nunenmacher. Three specimens.

This species may be placed near *denveranum*, but it is larger and broader, with less sinuate sides of the prothorax at base and with larger strial punctures.

Bembidion (Peryphus) alpineanum n. sp.—Shining but not so highly polished, black and feebly æneous, the legs black, rather short; head fully as long as wide, not quite as wide as an elytron, the front as in the preceding; antennæ black throughout, slender but much less than half as long as the body, the medial joints two and one-half times as long as wide; prothorax two-fifths wider than long, the sides only moderately arcuate, gradually and very feebly sinuate toward the basal angles, which are sharp though rather more than right; surface smooth, the impressions almost obsolete, the stria not coarse but subentire; basal impressions shallow, opaculate, with a small, deeper sublinear part, the carina fine, feeble and oblique; elytra nearly three-fifths longer than wide, scarcely one-half wider than the prothorax, parallel, gradually rounding behind, the striæ equal, entire, moderately impressed and with small and rather close-set punctures, the moderate foveæ near two-fifths and three-fourths. Length (♀) 4.5 mm.; width 1.6 mm. California (Nevada Co.). One specimen.

Not closely allied to any other species; it may be placed near the preceding.

I have at hand two specimens labeled "Alaska," that seem to be almost complete replicas of my series of *nitens*, from northern New York; this would be an exceptional breadth of distribution if true.

The following belongs to the same group as *erosum*, *acomanum* and *sarpedon:*

Bembidion (Peryphus) tuolumne n. sp.—Only moderately convex, shining, blackish-piceous, the anterior parts with feeble metallic lustre, the elytra abruptly pale at apex, the bounding line oblique on each elytron; disk nubilously but very indefinably reddish in about basal half; legs and most of the abdomen very pale; head moderate, with large eyes and rather deep grooves; antennæ three-fifths as long as the body, slender, blackish, feebly testaceous basally, the medial joints fully three times as long as wide; prothorax not quite a third wider than long, the base more than three-fourths the maximum width, the sides arcuate, becoming parallel only about at the sharp basal angles; basal impressions coarsely linear, at outer fifth or sixth, the surface thence inwardly very indefinitely impressed and punctulate; carina short and fine; anterior impressions shallow, not punctate; elytra fully two-thirds longer than wide, one-half wider than the prothorax, the parallel sides nearly straight; striæ coarse, closely punctate; foveæ small, near basal and apical third. Length (♂) 6.8 mm.; width 2.5 mm. California (Tuolumne Co.).

Allied perhaps most closely to *acomanum*, but narrower and with more impressed thoracic base and more fuscous antennæ; it is much more elongate and with less sharply maculate elytra than *erosum*.

The three following species may be placed near *ægrotus:*

Bembidion (Peryphus) viridinigrum n. sp.—Highly polished and deep black, with faint greenish-æneous lustre, the legs black; head subtriangular, three-fourths as wide as the prothorax, polished and smooth, the parallel channels deep, widely separated; antennæ black throughout, slender, gradually very slightly thicker distally; prothorax rather short, three-fifths wider than long, widest just beyond the middle, the sides rather strongly rounded, gradually very moderately sinuate and oblique toward the basal angles, which are evidently more than right; surface smooth, the transverse impressions feeble; median line deeply impressed, biabbreviated; two latero-basal impressions deep, oblique, the outer carina between a third and fourth the total length; base equal in width to the moderately sinuate apex; elytra oblong, with evenly rounded apex, scarcely one-half longer than wide, three-sevenths wider than the prothorax, having unimpressed series of coarse punctures, obsolete near apical fourth and thence finer, simple impressed striæ to the apex; discal punctures strong, on the third stria at two- and four-fifths; side margins throughout narrowly reflexed. Length (♂) 4.0 mm.; width 1.4 mm. Washington State (Govan).

Near *ægrotus* but broader, with shorter and more transverse prothorax and unimpressed but only slightly less coarsely punctate elytral striation, the discal foveæ less widely separated; the head is slightly larger.

Bembidion (Peryphus) govanicum n. sp.—Still somewhat broader in form, highly polished and deep black, the legs black; head shorter, wider than long, a little more than three-fourths as wide as the prothorax, the eyes rather more prominent; frontal channels widely separated, somewhat less accurately parallel; antennæ nearly similar, black throughout, the medial joints between two and three times as long as wide; prothorax still shorter and more transverse, the inflated sides more strongly rounded, becoming gradually though evidently sinuate toward the basal angles, which are more nearly right; surface and impressions nearly similar, except that the outer carina at base is a little shorter; base not quite as wide as the apex, which is much less sinuate than in the preceding and with blunter angles; elytra one-half longer than wide to less, two-fifths wider than the prothorax, oblong, evenly rounded at apex; striæ just visibly impressed, narrow and very finely punctulate, the punctules well separated; dorsal foveæ very small, at three-sevenths and near four-fifths; tibiæ and tarsi very slender, somewhat piceous. Length (♂ ♀) 3.9–4.1 mm.; width 1.4–1.55 mm. Washington State (Govan). Two specimens.

This species differs greatly from *viridinigrum* in its shorter, broader and laterally more strongly swollen prothorax, with less sinuate apex, but especially in the feeble elytral striation, with very minute and loose punctulation.

Bembidion (Peryphus) subærarium n. sp.—Oblong-suboval, rather convex, polished, black, with evident æneous lustre above, the legs dark piceous, very

slender; head as long as wide, three-fourths as wide as the prothorax, with well-developed and moderately prominent eyes, the narrow deep lateral grooves not quite parallel; antennæ only moderately slender, black throughout, the medial joints about two-thirds longer than wide; prothorax short, fully three-fifths wider than long, the subparallel sides almost evenly and moderately arcuate to the basal angles, which are minutely subprominent, scarcely perceptibly and broadly sinuate before the latter; transverse impressions fine and feeble, the slightly biabbreviated median line fine; latero-basal part of the surface rugose though shining, the impression small; carina short, oblique, only a fifth the total length; base just visibly wider than the broadly and moderately sinuate apex, this having slightly blunt angles; elytra rather more than one-half longer than wide, three-sevenths wider than the prothorax, suboval, very gradually rounding behind; striæ very fine, not impressed, gradually extinct posteriorly, very minutely, feebly, loosely and almost imperceptibly punctulate; discal foveæ very small and feeble, near two- and five-sevenths. Length (♂ ♀) 3.8–3.85 mm.; width 1.3–1.38 mm. California (Blue Lakes, Alpine Co.). Two specimens.

A very distinct species, not closely allied to any other but coming next to the preceding, because of its very feeble sculpture, though having the sides of the prothorax not inflated and strongly rounded as in that species. In the male the elytra are a little narrower and more parallel than in the female, and the elytral striæ are somewhat more coarsely impressed and with the very small punctures more distinct—perhaps an accidental character.

The species *californicum*, *marinianum* and *innocens* constitute a well-defined group of these small and very polished black species, all of which probably inhabit damp moss, and they are rather difficult to discriminate among themselves. The first differs in having the punctured elytral series shorter, especially toward the sides, where the series are much less than half as long as the elytra; in the other two the series are not quite so abbreviated and at the sides are fully half as long as the elytra; *innocens* differs from *marinianum* by having the head not so large, the prothorax a little shorter and the serial punctures of the elytra well separated as in the other two, though not quite so coarse.

The following species, a new form of the *californicum* group, has recently been received:

Bembidion (Peryphus) speculinum n. sp.—Rather narrow, convex, very smooth and highly polished, black with pronounced bright bronze reflection; the legs piceous, with blacker femora; head well developed, somewhat more than three-fourths as wide as the prothorax, the grooves narrow and very moderate; antennæ three-sevenths as long as the body, black, the medial joints obconic and about one-half longer than wide; prothorax two-fifths wider than long, the arcuate sides becoming parallel in basal fifth or sixth; elytra oblong, not quite a third wider than the prothorax, the striæ fine, unimpressed, finely and remotely punctate to slightly behind the middle; foveæ very fine and feeble, not distinct. Length 3.2 mm.; width 1.2 mm. British Columbia (Terrace),—Mrs. W. W. Hippisley. One example.

Allied to *californicum* but differing in its bright subæneous lustre, black antennæ, more transverse prothorax and very much finer serial punctures of the elytra. It may be placed near *subærarium*, but is smaller, more parallel and with very different basal parts of the thoracic sides.

After the *californicum* group of these small polished species comes a small group consisting of *govanicum* and *subærarium*, having a very short prothorax, with the sides not distinctly sinuate at base and the elytral punctures very minute and barely visible. Another group with similar oblique but barely at all sinuate sides of the prothorax toward base consists of *callidum*, *tritum*, *ægrotum*, *viridinigrum* and *modocianum;* these have the serial punctures of the elytra distinct to rather coarse. Then finally there is a group also having the striæ but slightly abbreviated, but the sides of the prothorax basally are rather deeply sinuate, becoming parallel before the angles; those that seem to pertain to this group, which has *nitens* as its oldest species, are *nitens*, *scrutatum*, *actuosum*, *denveranum*, *seductum* and *tractabile*, as well as *quadratulum* Notm. The species of this *nitens* group are only moderately well differentiated among themselves and generally have the strial punctures very small, though somewhat larger in *quadratulum;* those of the *callidum* section are similarly rather closely allied among themselves, often having a greenish lustre, but they usually have the strial punctures strong and deep.

The two following may be placed near *striola* Lec., but are much smaller and more slender:

Bembidion (Peryphus) angustior n. sp.—Narrowly suboval, shining, black, the elytra dark rufo-piceous, slightly more pallid subapically, the legs testaceous; head fully as wide as an elytron and four-fifths as wide as the prothorax, polished, with prominent eyes and deep grooves; antennæ slender, blackish, with the first joint testaceous; prothorax about a fourth wider than long, the arcuate sides becoming rapidly straight and parallel in basal fifth; surface smooth, the anterior impression deep, the posterior feeble, the distinct stria biabbreviated; basal impressions large, oval and deep, subpunctate, the carina fine, distinct, near the margin; elytra oblong-oval, fully one-half longer than wide, one-half wider than the prothorax; striæ rather coarse though very feebly impressed, fine, obsolescent apically, elsewhere with well-developed punctures; first fovea distinct, near two-fifths, the second minute, very feeble and near four-fifths. Length (♂) 4.4–5.1 mm.; width 1.65–1.85 mm. California (Del Norte Co.).

Differs from *striola* in its smaller size, much narrower form, still deeper thoracic basal impressions and other characters, and from *shastanicum* in its coloration and more prominent eyes, among other features.

Bembidion (Peryphus) debilicolle n. sp.—Still smaller and narrower, shining, black, the elytra barely at all picescent but with the pallid sublateral spot near the apex small though conspicuous; legs testaceous; head smaller than in the preceding and with less prominent eyes, not quite as wide as an elytron, the longitudinal impressions broader; antennæ black, with testaceous first joint, as slender as in *angustior* but not so long; prothorax smaller and shorter, more than a fourth wider than long, with less arcuate sides, gradually oblique behind but very gradually so, and just visibly sinuate near the angles; transverse impressions very feeble, the greatly biabbreviated stria deep; basal impressions large, concave, opaculate, deeper at the middle, the carina moderate; elytra oblong-oval, three-fifths longer than wide, nearly three-fifths wider than the prothorax, the striæ fine, very moderately punctate, obsolescent apically and but very slightly impressed, the foveæ near two-fifths and three-fourths, both distinct. Length (♂ ♀) 4.2–4.5 mm.; width 1.4–1.55 mm. Oregon (Lake Co.).

Differs very much from the *striola* type in the shape of the prothorax and obsolescent sinuation of the sides basally, also in the fine striation, finer punctures of the elytra and much more unequal foveæ of the latter.

Bembidion (Peryphus) modulatum n. sp.—Form rather narrow, only very feebly ventricose, polished, piceous, with unevenly testaceous elytra, transversely more pallid subapically; under surface rufous, the legs very pale yellowish; head fully as wide as an elytron, the grooves broad, deep, the eyes moderate; antennæ very slender, blackish, the first joint very pale; prothorax as in *striola* but relatively larger, the strongly arcuate sides parallel and straight in basal fifth; transverse impressions very feeble, the stria fine, attaining base but not apex; basal foveæ large, very deeply concave, deepest at the middle, the carina well developed; elytra oblong-oval, three-fifths longer than wide, rather less than one-half wider than the prothorax, the striæ moderate, almost unimpressed, rather strongly punctate, fine, very feeble and impunctate apically, the distinct equal foveæ at two-fifths and three-fourths. Length 4.8 mm.; width 1.85 mm. Oregon (Josephine Co.). One specimen, apparently male.

This species is comparable only with *shastanicum*, but is narrower and has a relatively larger prothorax and more rectilinear sides of the elytra; in coloration throughout it is very nearly similar.

Bembidion (Peryphus) exiguiceps n. sp.—Rather ventricose, polished throughout, black, with dark greenish lustre, the elytra more piceous-black, each with a large humeral and subapical nubilous rufous area, the legs rufous; head small, less than three-fourths as wide as the prothorax, with moderate eyes and large deep frontal grooves; antennæ missing in the type; prothorax relatively rather small, a third wider than long, the strongly arcuate sides becoming gradually parallel in about basal seventh, the lateral impressions at base rather large and deep, transversely united by the subangulate basal impression, the subapical fine but distinct, the carina rather short and fine; elytra oblong, with parallel arcuate sides, nearly two-thirds wider than the prothorax and three-fifths longer than wide; striæ rather fine but somewhat impressed, finely punctate, the foveæ just before the middle and before apical third. Length (♀) 4.8 mm.; width 1.85 mm. British Columbia (Terrace),—Mrs. W. W. Hippisley.

This is a distinct species, comparable with *tetracolum* Say, but smaller and narrower and with relatively smaller anterior parts, also finer and much less impressed elytral striæ.

Bembidion (Peryphus) aversans n. sp.—Form oblong-suboval, rather convex, polished; color throughout almost exactly as in *lucidus* Lec.; head rather large, fully as wide as an elytron and three-fourths as wide as the prothorax, the eyes moderate in size and prominence; antennæ pale, rather long, slender; prothorax a fourth wider than long, the somewhat strongly arcuate sides gradually oblique behind, becoming very gradually shallowly sinuate for some distance basally; surface smooth, convex, the transverse impressions feeble, the moderate stria impressed, biabbreviated; basal impressions broadly lunate, very deep, punctate, the carina long and strong; elytra oblong, oval behind, rather more than one-half longer than wide, one-half wider than the prothorax, convex, the rather coarse and feebly impressed striæ obsolete apically, distinctly punctured in about two-thirds, the foveæ very moderate, near one- and two-thirds. Length (♀) 5.0 mm.; width 1.65 mm. Mexico. Levette collection.

Allied to *lucidus* but narrower, with relatively larger head and smaller prothorax, with the sides not becoming so parallel near the angles.

As shown by the large series in my collection, *lucidus* occupies the region having northern Illinois, New Mexico, Humphreys Peak, Arizona, Reno, Nevada, and Edmonton, Alberta, as approximate limits; it does not seem to cross the Sierras; it is very abundant in Colorado.

Bembidion (Peryphus) urgens n. sp.—Very moderately convex, polished, greenish-black, the elytra black, with a faint pale external cloud near apical fourth, the reflexed margin diaphanously pale apically; legs testaceous; head moderate, scarcely as wide as an elytron, with prominent eyes and deep sulci; antennæ slender, piceous, the first joint paler, the medial joints not quite three times as long as wide; prothorax moderate, three-sevenths wider than long, the arcuate sides feebly sinuate behind, becoming parallel gradually toward the angles; impressions feeble, the anterior finely and sharply lineate, the stria impressed, biabbreviated; basal foveæ dull, deeply lineate at the bottom, the carina sharp and distinct; elytra rather broadly oblong, gradually circularly rounded behind, fully one-half longer than wide and a little more than one-half wider than the prothorax; striæ moderate, scarcely at all impressed, fine behind and not quite entire, finely, not closely punctate, as usual impunctate behind; foveæ near two-fifths and three-fourths. Length (♀) 4.5 mm.; width 1.6 mm. California (Modoc Co.).

This is a small and distinctly isolated species, which may be placed near *consanguineum*, but it is smaller, with relatively smaller prothorax and much finer punctures of the elytral striæ.

Bembidion (Notaphus) concitatum n. sp.—*Bembidion (Notaphus) nigripes* Csy., nec Kirby. (Mem. Col. VIII, 1918, p. 92.)

The description given under the above reference for *nigripes*, supposed to be of Kirby, will serve without further amplification. Since this description was written, I have received a specimen of the true *nigripes* of Kirby from Mr. F. S. Carr, and taken at Edmonton, Alberta, apparently in the region from which the

Kirbyan species was described. It is larger than *concitatum* from Marquette, Lake Superior, with a larger head and prothorax, and longer, less slender antennæ, but is almost identical in coloration and ornamentation throughout. *Concitatum* occurs also in Alberta, Washington State and British Columbia.

Bembidion (Notaphus) oblectans n. sp.—Rather ventricose and convex, shining, black, the legs yellowish-testaceous, the lustre slightly greenish; elytra broadly piceous basally and at apical third on each, with an even transversely lunate yellow fascia, which is gradually attenuate within and not interrupted by the striæ; head very moderate, distinctly narrower than an elytron, slightly alutaceous and with not very deep sinuous grooves; eyes moderate, the antennæ slender, blackish, with the first joint pale, the medial joints fully three times as long as wide; prothorax only about a fourth wider than long, the arcuate sides gradually shallowly sinuate posteriorly to the angles; transverse impressions feeble, the stria fine, subentire; basal impressions concave and punctulate, linearly deep at the middle, the carina rather long and strong; elytra oblong-oval, with arcuate sides, more than one-half longer than wide and rather more than one-half wider than the prothorax; striæ broadly impressed, distinct but finer apically, the punctures strong and well separated, obsolete apically; foveæ just behind one-fourth and at two-thirds. Length (♀) 5.2 mm.; width 1.9 mm. Canada (Edmonton, Alberta),—F. S. Carr.

The single specimen represents a species somewhat near *approximatum* Lec., as I have identified it, but with more shining surface and narrower, much less transverse prothorax.

Bembidion (Notaphus) fortunatum n. sp.—General coloration and shining lustre nearly as in the preceding, but larger and much broader and with nearly black, basally paler metallic femora; the elytra are nubilously piceous basally and each has a fascia of yellowish at apical third, but here the fascia is broken by the short separate lines on the strial intervals; head nearly similar, not as wide as an elytron but larger than in *oblectans*, the antennæ nearly similar, long and slender; prothorax larger, a third wider than long, otherwise somewhat similar, except that the large shallow basal foveæ have a deep rounded cavity notably distant from the basal margin; elytra nearly as in the preceding but broader, barely one-half longer than wide and not quite one-half wider than the prothorax, the foveæ similar. Length (♂ ♀) 5.4–5.7 mm.; width 2.15–2.25 mm. Canada (Edmonton, Alberta),—F. S. Carr.

Allied only to the last but differing in its much stouter form, more transverse prothorax, with different basal impressions and more irregular and comminuted posterior pale elytral fasciæ.

The two following species can be placed just before *contristans* Csy.:

Bembidion (Notaphus) amplipenne n. sp.—Oblong, unusually short and broad, shining, the head and the pronotum more feebly, alutaceous, black, the anterior parts somewhat greenish, the legs black, the elytra each with a well-defined rounded pale spot near the margin at apical fourth; head well developed, three-fourths as wide as the prothorax; eyes large, the frontal grooves deep and broad; antennæ slender, black throughout, about half as long as the body, the median

joints two and one-half times as long as wide; prothorax one-half wider than long, the moderately arcuate sides becoming gradually slightly sinuate toward base; lateral basal impressions large, rounded, near lateral fourth, the carina strong and conspicuous, in basal fourth; transverse impressions obsolete, the median line fine and biabbreviated; elytra oblong, two-fifths longer than wide, rather more than one-half wider than the prothorax, obtusely rounded behind, the sides parallel and arcuate; striæ but feebly impressed, rather finely but closely and deeply punctured; foveæ near basal and apical third. Length (♀) 5.0 mm.; width 2.0 mm. Utah (Trout Creek, Juab Co.),—Spalding.

Easily identifiable by the short broad outline, notably long slender antennæ and many other characters; it is not closely allied to any other species.

Bembidion (Notaphus) edmontonense n. sp.—Oblong, rather convex, shining, deep black throughout, except an outer transverse spot of yellow on each elytron near apical third; under surface black, the legs piceous; head moderate, shorter than wide, scarcely over two-thirds as wide as the prothorax, the eyes well developed, moderately prominent; frontal grooves narrow, parallel; antennæ piceous-black, with pale basal joint, filiform, the medial joints scarcely twice as long as wide; prothorax one-half wider than long, the sides parallel and distinctly, evenly rounded to the basal sinus, thence parallel in basal fifth or sixth, the angles right; base very slightly wider than the apex, which is barely visibly sinuate; anterior transverse impression subobsolete, the median line fine, not passing the subbasal impression; latero-basal impressions rather large and rugulose, the carina about a fifth the total length; elytra oblong, two-fifths longer than wide, two-fifths wider than the prothorax; striæ scarcely impressed, with distinct and well-separated punctures, obsolete toward apex; discal foveæ behind third and at three-fifths. Length (♂) 3.3 mm.; width 1.3 mm. Canada (Edmonton, Alberta),—Carr.

Should be placed near *amplipenne*, but very much smaller and with more rounded thoracic sides.

Bembidion (Notaphus) subexiguum n. sp.—Smaller and much narrower than *amplipenne*, shining, subæneous, black, the legs black; elytra with feeble nubilous pale maculation near apical third; head and prothorax very feebly alutaceous, the former moderate, not quite three-fourths as wide as the prothorax, with well-developed eyes and parallel frontal grooves; antennæ a little longer than the head and prothorax, rather slender, black throughout, the median joints about twice as long as wide; prothorax scarcely one-half wider than long, the rather well-rounded parallel sides becoming gradually moderately sinuate posteriad; lateral basal impressions near outer fourth deep and somewhat narrow, the carina strong, in rather more than basal fourth; surface nearly as in the preceding; elytra oblong-oval, not quite one-half longer than wide, nearly one-half wider than the prothorax; striæ rather fine, feebly impressed, somewhat finely but closely punctate, the foveæ before basal and at posterior third. Length (♂) 3.25 mm.; width 1.15 mm. British Columbia (Terrace),—Mrs. W. W. Hippisley.

This species is widely distinct from any other known to me; it is rather insignificant in point of size.

Bembidion (Notaphus) contristans n. sp.—Not stout, rather convex, black, with feeble subæneous lustre, alutaceous, the elytra more shining, with a large

marginal pale spot at apical third and another at the apex on each; legs pale; head rather large, wider than an elytron, with well-developed eyes, narrow grooves and a fovea at the upper margin of each eye; antennæ slender, as long as the elytra, piceous, gradually testaceous basally, the medial joints more than twice as long as wide; prothorax three-sevenths wider than long, the arcuate sides gradually feebly sinuate very near the basal angles; transverse impressions subobsolete, the stria fine, slightly biabbreviated, the basal foveæ deep, sublinear at the bottom, the carina moderate; elytra short, oblong, parallel, with nearly straight sides medially and broadly rounded basal angles, obtusely rounded at apex, less than one-half longer than wide and slightly less than one-half wider than the prothorax; striæ feebly impressed, distinctly punctured, fine and impunctate apically but almost entire; foveæ very small, near one- and two-thirds. Length (♂ ♀) 3.7–3.8 mm.; width 1.3–1.4 mm. Rhode Island.

The type of this species was associated very unsatisfactorily with *marcidum* in my revision, since it is much smaller and less dilated; a second specimen of *marcidum*, just received from Long Island, is exactly similar to the type, which is represented by the larger dimensions under the original description and is from the Hudson Valley. The present species may be associated with *posticum*, but is smaller and with much more abbreviated elytra.

Bembidion (Notaphus) haustum n. sp.—Stout, black, only feebly alutaceous and submetallic, the elytra still more shining and piceous-black, pale toward the humeri and toward the sides near basal and apical third, also with small nubilous spots near basal third of the third interval; legs dark rufous; head moderate, scarcely as wide as an elytron, the grooves rather shallow, the superciliary foveæ small and rounded; antennæ piceous, paler at base, the medial joints long, three times as long as wide; prothorax broad, about one-half wider than long, the arcuate sides gradually becoming but just visibly sinuate very near the angles; impressions broad and shallow, the stria sharp but greatly biabbreviated; basal foveæ duller, feebly concave, very deep linearly for a short distance from the base, the carina long and strong; elytra oblong, parallel, with feebly arcuate sides and obtuse apex, not quite one-half longer than wide and rather less than one-half wider than the prothorax; striæ moderate, fully entire, finely punctate, impunctate apically; foveæ sharp and asperulate, near third and three-fourths. Length (♀) 4.7 mm.; width 1.8 mm. California (Alameda Co.).

The single type cannot be associated closely with any of the species hitherto described, being broader, with more transverse prothorax and much more elongate antennal joints. It may be placed next to *formale* in the list.

Bembidion (Notaphus) auxiliator n. sp.—Rather stout, black, feebly ænescent, rather shining, the elytra strongly so, not metallic and with a small pale spot at the middle of the base of each, also three small ones along the third interval and others forming lateral fasciæ at one and two-thirds, the latter much broken; legs pale piceous; head well developed, a little wider than an elytron, the grooves rather deep, the superciliary fovea rounded and deep; antennæ long, black, with barely paler basal joint, not very slender, the medial joints obconic and somewhat more than twice as long as wide; prothorax transverse, inflated, the strongly arcuate sides rapidly oblique behind, becoming straight and parallel in basal

sixth; impressions subobsolete, the stria entire; basal foveæ broadly rugulose, linearly and deeply impressed at the bottom, the carina strong, moderately long; elytra oblong, with feebly arcuate sides and gradually rounded apex, not quite one-half longer than wide and somewhat less than one-half wider than the prothorax; striæ feebly impressed, rather coarse, entire, distinctly and closely punctured except apically; foveæ subasperate, before third and behind two-thirds. Length (♂ ♀) 3.4–4.0 mm.; width 1.45–1.6 mm. California (San Joaquin Co.).

Differs greatly from *conspersum*, near which it should be placed, in its broader form, wider prothorax, with much more inflated and strongly arcuate sides and longer and thicker antennæ; *conspersum* is abundant in the coast regions as far as Sta. Cruz and also occurs in San Joaquin Co.

Bembidion (Notaphus) accuratum n. sp.—Oblong, short, moderately convex, rather shining, the head subalutaceous, black, the legs piceous, the elytra with yellow vittæ in basal third from the third interval outward, shortest on the third, interrupted on the fifth and sixth, also with a subentire arcuate fascia on each at apical third and some feeble marking at the apex; head rather small, scarcely two-thirds as wide as the prothorax, with very moderate eyes and broadly impressed parallel frontal grooves; antennæ moderate, slender, filiform, blackish, paler basally; prothorax barely one-half wider than long, the parallel sides evenly rounded, straight and divergent in slightly over basal sixth, the angles subacute and sharp; base distinctly wider than the feebly sinuate apex; elytra two-fifths longer than wide, two-fifths wider than the prothorax, the striæ entire, moderate, somewhat impressed, moderately and closely punctate; discal foveæ small, near basal and apical third. Length (♂) 3.4 mm.; width 1.35 mm. Canada (Edmonton, Alberta),—Carr.

Allied to *auxiliator* but smaller and with relatively much smaller head, also with sharper and deeper lateral thoracic sinuses near the more acute basal angles.

Bembidion (Notaphus) semiopacum n. sp.—Narrower than *auxiliator* and more ventricose, or with smaller anterior parts, black, the head and prothorax opaque, the elytra shining, maculate almost as in that species, the apex paler; legs piceo-rufous; antennæ rather long, black, the first joint pale, the medial joints twice as long as wide; prothorax small, short, nearly four-sevenths wider than long, only slightly inflated, the more moderately arcuate sides gradually and only feebly sinuate toward base; impressions subobsolete, the fine stria subentire; basal foveæ large, shallow and rugulose, with narrow deep linear part at base, the carina rather long and strong; elytra with parallel and somewhat strongly arcuate sides, with gradually rounded apex, about one-half longer than wide and slightly more than one-half wider than the prothorax; striæ rather coarse, impressed, entire, moderately punctate, impunctate apically, the foveæ distinct, near basal third and just behind two-thirds. Length (♀) 3.7 mm.; width 1.35 mm. California (San Joaquin Co.).

The single type represents a species rather near *conspersum* but with more prominent eyes and smaller, shorter and much more opaque prothorax than in any other allied species.

Bembidion (Notaphus) spissicorne n. sp.—Notably elongate, convex, shining, the anterior parts polished, black, with feeble metallic lustre, which is wanting on the elytra; the latter have on each a small pale cloud externally at third and a narrow irregular fascia behind two-thirds; legs piceous, the femora black; head slightly wider than an elytron, with moderate but prominent eyes, deep and coarse grooves and rounded superciliary foveæ; antennæ unusually thick, blackish-piceous, the basal joint deep black, the second obscure testaceous, the median joints twice as long as wide; prothorax three-sevenths wider than long, the strongly arcuate sides oblique and straight behind, becoming sinuate for only a very short distance before the sharp right angles; impressions almost obsolete, the stria very fine and subentire; basal foveæ very moderate, rugulose, sublinearly deeper centrally, the carina only moderate in length and prominence; elytra elongate-oval, four-sevenths longer than wide, gradually rounding behind, three-sevenths wider than the prothorax; striæ impressed, strong and entire, finely, deeply and closely punctate except apically; foveæ moderate, three in number, near third, four-fifths and just behind the middle. Length (♀) 5.5 mm.; width 2.0 mm. Utah (Bellevue—3400 ft.),—Spalding.

This specius is allied to *scudderi* Lec., and is the only one known to me of the trifoveate section of *Notaphus*. According to Hayward, the prothorax in *scudderi* is about one-half wider than long and nearly as wide as the elytra. The obtuse hind thoracic angles of *consimile* and *hageni* Hayw. would prohibit comparison with those species, and in *henshawi* the coloration is entirely different. According to Leconte the median thoracic line in *scudderi* is deep; in *spissicorne* it is very fine.

Bembidion (Notaphus) albertanum n. sp.—Oblong, moderately convex, rather shining, black, faintly greenish; elytra with short pale lines before and behind basal third on the third interval, and a feeble lateral oblique fascia near basal third, also with an external fascia just behind apical third and not extending to the third interval; legs black throughout; head well developed, with the usual frontal sulci and moderately prominent eyes; antennæ rather slender, not quite half as long as the body, deep black, the first joint not paler, the medial joints nearly two and one-half times as long as wide; prothorax broad, fully one-half wider than long, the arcuate sides gradually shallowly sinuate toward the sharp right angles; impressions subobsolete, the stria fine, entire; basal foveæ dull, deeply and linearly impressed, the carina long and strong; elytra fully four-sevenths longer than wide, parallel, with slightly arcuate sides and rapidly, obtusely rounded apex, scarcely three-sevenths wider than the prothorax; striæ fine and scarcely impressed, entire, finely, rather closely punctate except apically; foveæ impressed, asperate, rather before basal and behind apical third. Length (♂♀) 4.7–5.3 mm.; width 1.85–2.2 mm. Canada (Edmonton, Alberta),—F. S. Carr.

The four specimens at hand represent a species wholly different from any other known to me; it is allied to *nigripes* in some respects but is much larger.

A specimen of *Bembidion* (*Notaphus*) *suspectum* Blais., transmitted by the author, shows that it is identical with *indistinctum* Dej., a common mid-Californian coastal species of larger size than the related forms.

Bembidion (Notaphus) assensum n. sp.—Convex, slightly alutaceous, black, feebly æneous, the elytra each with a small feeble basal cloud, one external near third and another also very indistinct near apical fourth; legs rufous; head moderate, barely as wide as an elytron, with deep sulci and well-developed, moderately prominent eyes; antennæ fully half as long as the body, moderately slender, piceous, the basal joint paler, the medial joints fully twice as long as wide; prothorax only a little over a fourth wider than long, widest near the middle, where the sides are most strongly arcuate, gradually feebly sinuate near the basal angles; surface convex, the impressions almost completely obsolete, the stria very fine, entire; basal foveæ very small, deep and linear, the carina short and very fine; elytra oblong, with slightly arcuate sides and subcircularly rounded apex, a little over one-half longer than wide and about three-sevenths wider than the prothorax; striæ rather coarse, not impressed, obsolete at apex, the punctures strong and widely separated; foveæ between fourth and third and at three-fifths. Length (♀) 4.25 mm.; width 1.45 mm. New York (near Brooklyn, L. I.).

Belongs near *argutum*, but slightly larger, with more elongate hind body and stronger and more separated strial punctures; it is much more abbreviated than *contractum*.

The remaining species described below under *Notaphus* belong to the group of very small species, represented by *flavopictum*, *versicolor* and *egens;* they are very numerous and in general seem to be well characterized; *vilescans* however belongs to the *vile* group.

Bembidion (Notaphus) terracense n. sp.—Shining, black, the elytra mottled with yellow and black, the former predominating, the latter more solid medially and posteriorly toward the suture; head fully three-fourths as wide as the prothorax, the eyes large, the impressions long and obtusely deep; antennæ black, scarcely as long as the head and prothorax, the medial joints short, scarcely one-half longer than wide; prothorax transverse, three-sevenths wider than long, strongly rounded at the sides, the latter strongly convergent basally, parallel in about basal sixth; basal impressions rather long, the carina short, very near the sides; surface nearly smooth, the transverse impressions very feeble; elytra long, more than one-half longer than wide, not quite one-half wider than the prothorax; striæ coarse and impressed, strongly punctate; foveæ near one-third and three-fifths. Length (♂) 3.25 mm.; width 1.15 mm. British Columbia (Terrace),—Mrs. W. W. Hippisley.

Allied to *decipiens* and of about the same size, but somewhat narrower, with shorter antennal joints, shorter and slightly more transverse prothorax and very much coarser and more impressed elytral striæ; the elytral maculation is nearly similar.

Bembidion (Notaphus) wisconsinium n. sp.—Form, size and elytral maculation very nearly as in the British Columbian *tolerans*, but more abbreviated, rather shining, greenish-black, the legs dark testaceous; head fully three-fourths as wide as the prothorax, with well-developed eyes and distinct longitudinal impressions; antennæ distinctly longer than the head and prothorax, black, gradually testaceous basally, the medial joints rather more than one-half longer than wide; prothorax short, a little more than one-half wider than long, the base unusually broad for this section, being more than three-fourths the maximum width; sides inflated and rounded, parallel and straight in fully basal sixth;

basal impressions rather short but deep, the carina at some distance from the sides; median line distinct, the transverse impressions very feeble; elytra oblong-oval, scarcely one-half longer than wide, three-sevenths wider than the prothorax; striæ not impressed but with deep and close-set punctures, the foveæ near basal and apical third. Length (♀) 3.3 mm.; width 1.2 mm. Wisconsin (Bayfield),—Wickham.

This species was overlooked in my previous revision of the genus and confounded with *decipiens*, than which it has an altogether different, more transverse and basally wider prothorax and somewhat larger eyes; it is more closely related to the British Columbian *tolerans*, but differs in its very much shorter prothorax and elytra among other characters.

Bembidion (Notaphus) oregonum n. sp.—Smaller than the two preceding, of nearly similar organization, black, shining, non-metallic, the legs black; elytra black, with feeble paler nubilosity near apical third, except toward the suture; head well developed, four-fifths as wide as the prothorax, the eyes rather large; frontal grooves sharply deep, almost parallel; antennæ black throughout, long, rather more than half as long as the body, the medial joints obconic and fully one-half longer than wide; prothorax rather short, very nearly one-half wider than long, only moderately inflated, the arcuate sides becoming parallel in basal sixth or seventh; base rather more than three-fourths the maximum width; basal impressions and carina distinct; transverse impressions very feeble; surface smooth and polished; elytra oblong-oval, about one-half longer than wide, two-fifths wider than the prothorax; striæ not coarse, feebly impressed, rather finely and closely punctate; foveæ at two- and four-sevenths. Length (♂ ♀) 2.6–2.8 mm.; width 1.0–1.1 mm. Oregon (Josephine Co.).

Comparable only with *flavopictum*, but smaller and more abbreviated, with shorter basally somewhat broader prothorax and almost entirely black elytra. A specimen at hand from Nogales, Ariz., seems to harmonize very well with the California examples of *flavopictum*, thus indicating a more extended range.

Bembidion (Notaphus) nogalesium n. sp.—Thoracic base much more constricted than in any one of the preceding small species, polished black, the elytra in great part with obscure flavid marking, wanting toward the suture in posterior half; legs blackish; head large, nearly four-fifths as wide as the prothorax, the eyes large and prominent; frontal grooves sensibly convergent, sharply deep; prothorax one-half wider than long or less, the well-inflated sides strongly arcuate, strongly converging behind, becoming subparallel very near the base, which is three-fifths the maximum width; lateral impressions at base elongate-oval, very deep, the carina not distinct; surface smooth, impressed medially near base; elytra oblong-oval, less than one-half longer than wide, two-fifths wider than the prothorax; striæ somewhat coarse, evidently impressed, the punctures rather strong; foveæ small, near two-sevenths and two-thirds. Length (♂ ♀) 2.4–2.6 mm.; width 0.8–0.9 mm. Arizona (Nogales, Sta. Cruz Co.). Two specimens.

This very distinct species belongs to the Central Mexican group, represented by such forms as *indigens*, and also the Arizona *demissum*, but the thoracic base is much narrower than in the latter.

Bembidion (Notaphus) vilescans n. sp.—Convex, polished and deep black throughout the body and legs; head well developed, nearly four-fifths as wide as the prothorax, with rather large and prominent eyes; frontal grooves obtusely deep, parallel; antennæ slender, longer than the head and prothorax, the median joints two-thirds longer than wide; prothorax two-fifths wider than long, inflated, the sides rather strongly arcuate, parallel and straight in basal sixth or seventh; latero-basal impressions moderate but deep, at an unusual distance from the angles; surface very smooth, convex, the impressions obsolescent, excepting that one very near the base; elytra oval, not quite one-half longer than wide, very nearly one-half wider than the prothorax; striæ unusually fine, scarcely at all impressed, very finely punctate; foveæ small, at two-sevenths and three-fifths. Length (♀) 2.7 mm.; width 0.9 mm. Utah (Bellevue—3400 ft.).

The single specimen of this distinct species is allied evidently to *vile* Lec., but differs in its larger and more transverse prothorax, rather longer antennæ, more inflated and more finely striate elytra and other features.

Bembidion (Diplocampa) canadianum n. sp.—Deep polished black throughout, the elytra without paler areas, the legs piceous; form elongate-suboval, convex; head well developed, rather more than three-fourths as wide as the prothorax, with moderately prominent eyes; frontal grooves not broadly impressed, oblique, uniting at apex; antennæ not very slender, black, with paler basal joint, the medial joints about one-half longer than wide; prothorax three-sevenths wider than long, the sides strongly arcuate, becoming oblique behind the middle, rapidly parallel in basal sixth, the angles right; base distinctly narrower than the apex, which is transverse, with rather blunt angles; surface with a few ruguliform lines, the median line fine, slightly biabbreviated; latero-basal impression slightly elongate, smooth and close to the short fine carina; elytra oval, one-half longer than wide to less, a third wider than the prothorax, with arcuate sides very gradually rounded at apex; striæ moderate, scarcely impressed, with distinct and slightly separated punctures, subobliterated in about apical third; discal foveæ at one-fifth and four-sevenths. Length (♂ ♀) 3.0–3.4 mm.; width 1.15–1.25 mm. Canada (Edmonton, Alberta),—Carr.

This distinct species may be placed near *tersum*, from Lake Tahoe, but is more elongate, with larger prothorax, having more strongly arcuate sides, the antennæ thicker. The neck (♂) is slightly more elongate and the elytral apices less obtuse than in the female.

Phrypeus n. gen.

At the time of my revision of *Bembidion* and allied genera, the species described by Hayward under the name *Bembidion rickseckeri* was unknown to me in nature, but, through the kindness of friends in California, I have since received a series not only of that but of a related more northern species, and careful observation shows that these singular forms constitute a genus, quite distinct from *Bembidion* and named as above.

The body in this genus is small, slender, rather depressed, the

head somewhat as in *Bembidion* but with much smaller eyes and longer tempora as in *Lymnæops*. It is difficult to see the mouth structure very well *in situ*, but it would appear that the mentum has an even sinuation, without trace of tooth, and that the ligula is flat, corneous, narrow, with straight oblique sides and angularly emarginate apex. No decided sexual peculiarities can be observed in the anterior tarsi, but the fourth maxillary palpal joint seems to be conical in the male and subulate in the female, normally short however in both. The antennæ are slender, filiform and coarsely pubescent throughout, nearly as in *Bembidion*. The prothorax is strongly constricted at base, with the sides straight and slightly diverging from the constriction to the sharp basal angles in fully basal fourth of the thoracic length, the anterior impression nearly obsolete and the posterior deep and coarsely punctate, the basal foveæ moderate and deep and the carina obsolete, being fused with the margin, this toward base being thus narrowly double. The impressed and strongly punctate elytral striæ are rather abruptly obsolete at apex, excepting the first. On the third stria there are three very minute setigerous punctures, different in nature from the two or three foveæ occurring in *Bembidion*.

In *Phrypeus rickseckeri*, of which I have four specimens sent by Dr. Blaisdell and taken at Fairfax, in Marin Co., the head and prothorax are very deep brown to black in color, but in the following the color is uniform pale testaceous throughout:

Phrypeus rutilinus n. sp.—Form slightly more elongate than in *rickseckeri* and differing in color, as stated above, the elytra piceous at apex and with a wide and vague, feebly picescent median fascia; legs pale; head rounded, somewhat larger than in *rickseckeri*, though distinctly narrower than the prothorax, the antennæ a little longer, nearly three-fifths as long as the body; frontal sulci parallel, coarse and deep, half the entire length from base to frontal margin; prothorax a fifth to fourth wider than long, inflated anteriorly, the stria entire, impressed, generally somewhat dilated through the posterior transverse impression; elytra four-sevenths longer than wide, depressed above, the sides gradually rounding posteriad; strial punctures coarse and impressed, rapidly fine posteriorly, the three foveæ so minute that they are observable only under rather high amplification. Length 2.7–3.0 mm.; width 0.9–1.1 mm. Oregon (Josephine Co.). Four specimens.

There seems to be considerable sexual difference in the prothorax, this being only very little wider than long in the male and distinctly wider in the female.

Lymnæops Csy.

The species described by LeConte under the name *laticeps* has a head so nearly equal in width to the prothorax, as testified by the

author, as well as Mr. Hayward, that it inspired the name *laticeps* as the most fitting for it. In *angusticeps* the head is subelongate and only about three-fourths as wide as the prothorax, so that on the merest glance there is great and very striking inequality. Under the circumstances I am compelled, therefore, to reject the conclusions of Mr. Fall (Ent. News, XXXIII, p. 83) as incorrect.

Curtonotus Steph.

This is a genus peculiarly northern in habitat; the following undescribed species have been received recently:

Curtonotus subtilis n. sp.—Oblong-suboval, notably convex and strongly shining, black, the elytra dark brown; legs piceo-rufous, the tarsi deep black; head four-sevenths as wide as the prothorax, with moderate but rather prominent eyes and short linear apico-frontal impressions; antennæ longer than the head and prothorax, piceous, gradually testaceous basally; prothorax a little less than one-half wider than long, the sides parallel and evenly, rather strongly arcuate from apex to base, the basal angles obtuse but not rounded; surface smooth, rather strongly, sparsely, punctured basally, the stria deep, subentire, the subbasal impressions very feeble, remote from the base, the obtuse ridge outwardly limiting the scarcely impressed punctured area distinct; elytra three-fifths longer than wide, with feebly arcuate sides, feeble subapical sinus and gradually rounded apex, only slightly wider than the prothorax; striæ fine, not impressed, with very moderate punctures, slightly coarser intero-basally, the scutellar stria rather long; male with the anterior tarsi having the three dilated joints gradually narrower. Length (♂) 8.5 mm.; width 3.35 mm.

This very distinct species may be placed near *brunnipennis*, but, apart from coloration of the body, it is not at all closely similar, the fine, unimpressed striæ and narrower bodily form imparting a very different facies. The single type may possibly be from Labrador, its only label being "Stupart Bay." The elytra are feebly inflated posteriorly.

Curtonotus albertanus n. sp.—Parallel, convex and polished throughout, deep black, the legs black, with piceous-black tarsi, the anterior flavate, especially in the male; head four-sevenths as wide as the prothorax, with notably prominent eyes and narrow frontal lines; antennæ barely longer than the head and prothorax, testaceous throughout; prothorax two-fifths wider than long, the moderately arcuate parallel sides becoming broadly and feebly sinuate toward the sharp right basal angles; stria fine, dilated at base; basal impressions large, closely and strongly punctate, the punctures extending narrowly across the middle; inner part of the impression linear, the outer bounding ridge strong; elytra parallel, nearly two-thirds longer than wide, about as wide as the prothorax, rapidly obtusely rounded behind, the sinuses distinct; striæ rather coarse, impressed, with more or less convex intervals, the punctures moderate, deep; male with the anterior tarsi well dilated, the first two joints of equal width. Length (♂ ♀) 9.7–10.0 mm.; width 3.65–4.0 mm. Canada (Edmonton, Alberta),—F. S. Carr.

The series at hand is ample and includes also one specimen from Manitoba.

Curtonotus gilvipes n. sp.—Elongate, of very moderate width, polished, deep black, the legs pale yellow-testaceous; head nearly three-fifths as wide as the prothorax, the eyes large but much less prominent, very moderately convex; antennæ testaceous, a little longer than the head and prothorax, the latter not quite one-half wider than long, the parallel and rather strongly arcuate sides sinuate basally, becoming gradually parallel for a very short distance at the sharply marked basal angles; surface with the anterior impression not obsolete and punctureless as in the two preceding, but evident though feeble and with some fine sparse punctures, the stria strong, obsolete at apex; basal impressions deep, strongly and closely punctate, only feebly binary, the punctures fine and sparse across the basal surface, the outer bounding ridge long, strong and unusually acute; elytra parallel, three-fifths longer than wide, with evenly and feebly arcuate sides and gradually rounded apex, the sinuses short and feeble, a fifth wider than the prothorax; striæ coarse and rather deep, coarsely, deeply and closely punctate, with very moderately convex intervals; male with the anterior tarsi only moderately dilated, the basal joint with long parallel peduncle. Length (♂ ♀) 9.6–10.0 mm.; width 3.65–4.0 mm. Canada (Manitoba).

Easily recognizable by the very moderately convex eyes, coarse and strongly punctate elytral striæ and other characters as noted.

Curtonotus brevipennis n. sp.—Oblong, more abbreviated than in any of the preceding, subparallel, feebly inflated behind, shining, piceous in color, the under surface and legs rufous; head four-sevenths as wide as the prothorax, with moderate but prominent eyes and rather broad deep antero-frontal lines; antennæ slender, pale testaceous, not quite as long as the head and prothorax, the latter large, one-half wider than long, the parallel and rather strongly arcuate sides broadly, feebly sinuate toward the very sharp right basal angles; anterior impression nearly obsolete but with a few fine punctures, the stria fine, subentire; basal impressions rather large, feebly concave, distinctly binary and with somewhat strong but not dense punctures, very few and small medially, the outer bounding ridge strong, acute basally; elytra about one-half longer than wide, slightly though obviously wider than the prothorax, the sides feebly arcuate, gradually rounded behind, with short shallow sinuses; striæ not coarse but well impressed and with small separated punctures, the intervals broadly convex and feebly micro-reticulate; scutellar stria long. Length (♀) 9.9 mm.; width 3.9 mm. Western Hudson Bay region. One example.

A rather broad oblong species, easily to be recognized by the short antennæ, sculpture and rather unusually abbreviated elytra.

Curtonotus manitobensis n. sp.—Subparallel and rather convex, with unusually elongate elytra, black, rather shining, the under surface black, the legs rufopiceous; head notably large, nearly three-fifths as wide as the prothorax, with well-developed and prominent eyes, the apical strioles of the front fine; antennæ testaceous, scarcely as long as the head and prothorax, the latter rather short, four-sevenths wider than long, the parallel and strongly arcuate sides rapidly sinuate behind and rectilinearly parallel for a considerable distance before the sharp right angles; anterior impression obsolete and virtually impunctate; stria moderate, stronger basally and not attaining the apex; basal impressions subobsolete, strongly but not very densely punctate, binary, the inner impression

sharp and rectilinear, almost attaining the base, the outer narrow and deep along the prominent ridge; median part narrowly subimpunctate; elytra long compared with the prothorax, and between a fourth and fifth wider than the latter, nearly two-thirds longer than wide, the parallel sides feebly and evenly arcuate, gradually rounding behind, with broad feeble sinuses; striæ sharp but rather fine, only shallowly impressed, with moderate and well-separated punctures; intervals feebly convex; scutellar stria long. Length (♀) 11.5–11.7 mm.; width 4.2–4.6 mm. Canada (Manitoba).

The two specimens agree fairly well but the second is materially narrower than the type, with slightly deeper striæ and with the inner linear thoracic impression less prolonged toward the basal margin, also with the prothorax more nearly as wide as the elytra.

Of the above species *albertanus* and *gilvipes* may be placed near *catenulatus*, the former differing in its virtually impunctate elytral striæ and the latter in its much less prominent eyes; *brevipennis* can very well follow *gilvipes*, being more abbreviated and with more prominent eyes, but *manitobensis* is not related closely and might follow *bowditchi*, though having relatively more elongate elytra and sharply linear long inner impression of the pronotum.

The following are two additional species of this genus recently received:

Curtonotus durus n. sp.—Parallel, convex, moderately shining, black, the legs piceo-rufous; head somewhat elongate, two-thirds as wide as the prothorax, with well-developed prominent eyes and parallel apical strioles; antennæ rather long, testaceous, the medial joints three times as long as wide on the narrower side, the third moderately long; prothorax only two-fifths wider than long, the sides broadly, evenly arcuate, feebly sinuate near the basal angles, which are right; base but little wider than the deeply sinuate apex, the latter having very broadly rounded angles; surface with a few transverse ruguliform lines medially, the latero-basal impressions deep, strongly and closely punctate anteriorly, longitudinally substriate, bounded outwardly by a strong carina, excavated along its inner side; elytra two-thirds longer than wide, parallel, with feebly arcuate sides, barely visibly wider than the prothorax; striæ rather coarse, less so posteriad, strongly and closely punctate; intervals flat, micro-reticulate but shining. Length (♀) 9.7 mm.; width 3.75 mm. Canada (Edmonton, Alberta), —Carr.

May be placed near *manitobensis* but much narrower, with less transverse prothorax and much less sinuate sides of the prothorax basally.

Curtonotus biarcuatus n. sp.—Parallel, convex, shining, black, the legs piceous, with paler tarsi, the head nearly as in the preceding, the antennæ not quite so long; prothorax also nearly similar, except that it is scarcely over a third wider than long, with more strongly arcuate sides, which are still more shallowly sinuate toward the angles; apex distinctly narrower than the base, with similarly broadly rounded angles but not so evenly sinuate, the middle of the sinus becoming arcuate; surface and impressions throughout nearly as in *durus;* elytra almost

similar in form and proportions, but somewhat more swollen submedially; striæ rather coarse, sharply deep, impunctate except very feebly near the base; intervals feebly convex, similar in sculpture. Length (♀) 10.0 mm.; width 4.0 mm. Canada (Edmonton, Alberta),—Carr.

Although so similar to *durus* in most of its characters, this species differs very greatly in the elytral striæ, as well as certain other characters mentioned above.

Bradytus Zimm.

The following species comes rather close to *æqualis*, but has a very much smaller head:

Bradytus neomexicanus n. sp.—Oblong and strongly convex, deep black and highly polished, the legs black; head small, scarcely over half as wide as the prothorax, the apico-frontal impressions very small, fine and oblique; eyes prominent; antennæ slender, testaceous, about as long as the head and prothorax, the latter not quite one-half wider than long, the sides broadly arcuate, straighter and more parallel in more than basal half, the angles slightly obtuse but scarcely blunt; surface very smooth, without transverse impressions, the stria fine; two basal impressions at each side very small and feeble, the inner linear and slightly oblique; surface scarcely at all punctulate; elytra three-sevenths longer than wide, the sides gradually rounding behind about the middle; striæ fine but distinct, scarcely impressed and wholly impunctate, the scutellar very fine and fragmentary. Length (♂) 7.2 mm.; width 3.2 mm. New Mexico (Maxwell). One specimen.

The anterior tarsi in the male are moderately dilated, piceous, with the first three joints regularly diminishing in width.

The first species described below belongs near *obsolescens* and *specularis*, but especially the latter; the antennæ distally are much thinner than in *obsolescens;* the second is near *relictus* but with more inflated hind body:

Bradytus spaldingi n. sp.—Oblong, convex, polished in the male, black, the prothorax, tibiæ and tarsi dark piceous; head just visibly more than half as wide as the prothorax, with notably prominent eyes; anterior frontal grooves linear and oblique; antennæ piceous, slightly paler basally, moderately slender, not extending quite to the thoracic base, the medial joints about twice as long as wide; prothorax not quite one-half wider than long, widest slightly behind the middle, the sides evenly and rather strongly arcuate, the hind angles more than right but somewhat sharp; surface smooth, with two deep subequal impressions toward each side basally, inclosing very few fine feeble punctures; median line rather deep, extending from base not quite to apex; elytra only a third longer than wide, very little wider than the prothorax, with slightly arcuate parallel sides and obtusely rounded apex; striæ fine but distinct, smooth; anterior male tarsi only slightly dilated, the others slender. Length (♂) 7.0 mm.; width 3.3 mm. Utah (Callao),—Mr. Tom Spalding.

Differs from *specularis*, from near Tucson, Ariz., in its more abbreviated form and rather smaller head, with more prominent

eyes, smoother thoracic base, with deeper and more equal lateral impressions and in the less compressed antennæ, among other structures. The antennæ of *obsolescens* are nearly as in *specularis*, but the body is much more abbreviated, nearly as in *spaldingi*, though the basal impressions are very much feebler and the punctures somewhat more numerous.

Bradytus maxwelli n. sp.—Oblong-suboval, strongly convex, with rather inflated hind body, polished black, the elytra (♀) faintly alutaceous; legs rufopiceous; head subtriangular, as long as wide, four-sevenths as wide as the prothorax, the eyes moderate and only slightly prominent; anterior strioles deep, long, arcuate and oblique; antennæ testaceous, not extending to the thoracic base, the medial joints slightly more than twice as long as wide, the third almost one-half longer than the fourth; prothorax one-half wider than long, the subparallel sides distinctly and subevenly arcuate, straighter toward the hind angles, which are sharp though somewhat more than right; base fully a fifth wider than the apex, which is rather deeply sinuate, with slightly rounded angles; surface smooth, without transverse impressions and with fine entire median stria; subbasal impression just within lateral fourth very deep, oval and with very few punctures, which are wholly limited thereto, the outer fovea small, very deep and postero-outwardly oblique; elytra three-sevenths longer than wide, at the middle of the rather strongly arcuate sides a fourth or fifth wider than the prothorax; striæ fine, abrupt, finely, loosely and not very distinctly punctulate, the scutellar moderate, free; intervals flat or very nearly. Length (♀) 9.0 mm.; width 3.85 mm. New Mexico (Maxwell),—Wade.

May be placed near *relictus* but larger, stouter, more inflated in the hind body, less punctate at the thoracic base and with less prominent eyes, the types of both being the female.

Celia Zimm.

As shown by the abruptly deplanate sides of the pronotum, the following species may be placed just after *laxicollis*, but it is much smaller and narrower, as well as darker in color:

Celia piperi n. sp.—Parallel, only moderately convex, polished throughout and piceous-black above, the entire under surface and legs pale-testaceous; head well developed, nearly four-sevenths as wide as the prothorax, the eyes rather large but only moderately convex; anterior strioles parallel; antennæ slender, testaceous, extending somewhat behind the thoracic base, the medial joints between two and three times as long as wide; prothorax nearly one-half wider than long, the sides very finely reflexed, broadly arcuate anteriad, becoming gradually straighter and parallel behind; reflexed margins pallid; surface punctulate basally, with two feeble lateral impressions, the outer more oblique, the sides abruptly deplanate, except beyond the middle; elytra nearly two-fifths longer than wide, at the middle of the somewhat arcuate sides a little wider than the prothorax; striæ very fine, simple, the intervals flat. Length (♀) 6.6 mm.; width 2.9 mm. Michigan (Grayling—near Bay City),—Prof. C. V. Piper.

Easily recognizable by the rather narrow outline, abruptly deplanate sides of the pronotum, very fine elytral striæ and by the general coloration of the body.

The following four species may be placed immediately after *shastanica* in the list:

Celia vancouveri n. sp.—Oblong, moderately convex, shining, bright æneous, greenish-black beneath, the legs black; head very slightly more than half as wide as the prothorax, the frontal strioles very short, oblique; eyes well developed but only of very moderate convexity; antennæ barely shorter than the head and prothorax, black, with the first joint testaceous: prothorax about four-fifths wider than long, the sides slightly converging and very feebly arcuate from the base, gradually more arcuate anteriorly to the rounded angles, the basal angles nearly right, not blunt, the puncture in the angle equidistant from base and side and distinct; surface smooth, the stria not deep, biabbreviated; inner basal impressions minute, remote from the margin, longitudinally linear, the outer small, rounded and feeble; elytra three-sevenths longer than wide, parallel, barely at all wider than the prothorax and obtusely rounded behind, with short distinct sinuses; striæ very fine but sharp, impunctate, the scutellar long, fine and entire. Length (♂) 7.9–8.7 mm.; width 3.65–3.85 mm. British Columbia and Washington State (Govan and Pullman).

Four specimens, the female not at hand. The anterior male tarsi are rather strongly dilated, gradually more so basally as usual and are deep black.

Celia olympia n. sp.—Stout, oblong-oval, convex, very shining and bright æneous above, black beneath, the legs black; head slightly more than half as wide as the prothorax, the apical strioles very fine and oblique; eyes well developed but only moderately prominent; antennæ somewhat longer than the head and prothorax, black, the first joint rufo-piceous; prothorax fully three-fourths wider than long, the sides nearly as in *vancouveri*, but parallel basally and with the apical angles not distinctly rounded, the basal angular puncture smaller; surface smooth, nearly as in that species; elytra shorter, slightly wider than the prothorax and but little over a third longer than wide, the parallel sides more gradually rounded in more than posterior half, the apex less obtuse; surface and striæ nearly similar, the former more shining and with the median line of the intervals just visibly tumescent. Length (♂) 8.3 mm.; width 3.8 mm. Washington State (Wilbur). One specimen.

Easily separable from the preceding by its more polished surface, more abbreviated contour and more posteriorly narrowed elytra, with the median line of the intervals feebly prominent, in a way never so evident in *vancouveri*.

Celia subsimilis n. sp.—Much smaller, oblong-suboval, convex and bronzed above, black beneath, the legs black; head slightly though evidently more than half as wide as the prothorax, the strioles short, more parallel and much broader; eyes moderate, not very prominent; antennæ nearly as in the preceding; prothorax shorter, almost twice as wide as long, the sides broadly, subequally arcuate, a little more so apically and not quite parallel basally, the basal angles rather sharp, with distinct included puncture; short inner impression feeble and oblique,

the outer small and scarcely more than a very shallow dent; elytra about a third longer than wide, with parallel and rather arcuate sides and gradually rounded obtuse apex, at the middle slightly wider than the prothorax; striæ very fine, the intervals not quite flat. Length (♂ ♀) 7.2–7.4 mm.; width 3.3 mm. Washington State (Wawawai and Govan). Two specimens.

Distinguishable from both of the preceding by the much smaller size, distinctly narrower form and relatively shorter prothorax; the anterior tarsi in the male are deep black and moderately dilated.

Celia marginatella n. sp.—Broadly oblong, rather convex, bronzed above, the ninth elytral interval greenish, black beneath, the legs black, moderately shining; head nearly four-sevenths as wide as the prothorax, the eyes rather prominent; anterior strioles short, dilated and subpunctiform; antennæ notably short, not as long as the head and prothorax, black, with pale first joint, the medial joints only one-half longer than wide; prothorax four-fifths wider than long, the sides parallel and barely arcuate, gradually so from rather behind the middle to the narrowly rounded apical angles, the basal angles right and sharp, the inclosed puncture small; surface not punctate at any part, the stria fine, more evident basally, not attaining apex, the basal impressions extremely small, feeble and barely traceable; elytra barely a third longer than wide, at the middle very slightly wider than the prothorax, the parallel sides feebly arcuate; apex gradually rounded, with rather deep sinuses; striæ very fine, the scutellar not very long; intervals nearly but not quite flat, strongly micro-reticulate. Length (♀) 7.5 mm.; width 3.45 mm. Canada (Manitoba). One specimen.

Readily identifiable by the rather small size in this special section, and by the notably short and somewhat thick antennæ.

Celia parallela n. sp.—Parallel, moderately convex, black and shining, but with scarcely any metallic lustre, the under surface, legs and all the tarsi deep black; head three-sevenths as wide as the prothorax, the eyes moderately prominent; apical strioles small, linear and oblique; antennæ slender, as long as the head and prothorax, black, the basal joint testaceous, blackish above; medial joints twice as long as wide; prothorax almost four-fifths wider than long, the sides broadly arcuate, becoming gradually parallel near the base, the angles right and well defined, the inclosed puncture equidistant from base and side; apical angles narrowly rounded; surface nearly smooth; both transverse impressions evident medially, the basal impressions small and subobsolete; elytra almost one-half longer than wide, barely visibly wider than the prothorax, the parallel sides very feebly arcuate, the apex obtusely rounded; striæ fine, not at all punctulate, the intervals nearly flat, feebly micro-reticulate; male with the anterior tarsi very moderately dilated. Length (♂) 7.8 mm.; width 3.6 mm. Canada (Alberta). This and the next communicated by Mr. Carr.

This is a very distinct species, not closely allied to any other and recognizable by its parallel form, black shining surface and rather prominent eyes.

Celia albertæ n. sp.—Female notably stout, bright greenish-bronze above, the shining under surface and legs deep greenish-black; upper surface moderately alutaceous; head barely more than half as wide as the prothorax, with rather feebly convex eyes and minute feeble linear oblique strioles; antennæ short but

rather slender, only one-half longer than the head, black, the large cylindric first joint pale-testaceous, the base of the third compressed as usual; prothorax three-fourths wider than long, the sides broadly arcuate from the rounded apical angles, becoming nearly straight and parallel posteriorly, the basal angles right, sharp, the included puncture further from side than base; surface smooth, with some sparse wavy rugulæ, the fine stria biabbreviated; inner subbasal impression in the form of a minute incised line, the outer a feeble shallow rounded dent; elytra relatively inflated, with arcuate sides, at the middle a fourth or fifth wider than the prothorax, two-fifths longer than wide, rapidly rounded behind; striæ very fine, impressed, minutely subpunctulate, the intervals feebly ridged, alternately more so, the micro-reticulation distinct. Length (♀) 8.6 mm.; width 4.2 mm. Canada (Alberta). One specimen.

A distinct species, somewhat related to *patruelis* and *lauta*, but with much shorter antennæ and markedly different coloration.

Celia columbiana n. sp.—Oblong, broad, rather convex, shining to distinctly alutaceous, bright cupreo-æneous above, the under surface and legs black; head only about half as wide as the prothorax, the eyes large but only moderately convex; apical strioles rather long, coarse and deep, moderately oblique; antennæ black, extending almost to base of the prothorax, the first and second joints testaceous, the medial joints very nearly twice as long as wide; prothorax rather long, barely three-fourths wider than long, the arcuate sides becoming gradually parallel toward base, the angle right and well defined, the included puncture coarse, subequidistant from base and side, the anterior angles rather broadly rounded; surface punctulate basally and rather coarsely, unevenly punctured between the moderate anterior impression and the apex; stria sharply impressed, subentire; basal impressions deep, the inner longitudinally lineate, the outer oblique; elytra three-sevenths longer than wide, barely visibly wider than the prothorax, with very feebly arcuate sides and gradually arcuately narrowed and unusually acute apex; striæ not coarse but deep and sharply defined, scarcely at all punctulate, the first punctured along the scutellum, the scutellar stria sharply defined; intervals with disconnected feeble prominences, smoother and flat suturally. Length (♀) 9.2 mm.; width 4.0 mm. British Columbia. One example.

There is no described species with which this can be very closely compared, but in general it may be closest to *patruelis*, differing however in thoracic sculpture, coloration and other characters.

Celia funebris n. sp.—Unusually abbreviated, broad, oblong and of rather small size in the present section, black, moderately shining, the scutellum greenish; under surface and legs black; head barely more than half as wide as the prothorax, the eyes well developed but rather feebly convex, the strioles short, coarse and oblique; antennæ short, two-thirds longer than the head but somewhat slender, with obconical joints, black, the first joint testaceous, blackish above; prothorax short, very nearly twice as wide as long, the sides parallel, rather rapidly rounding beyond the middle, with rounded apical angles, the basal angles right, with very moderate included puncture; surface feebly impressed apically and with a few subobsolete punctures, the stria biabbreviated; basal impressions subobsolete; the slightly impressed apex and subbasal parts have a feeble cupreous glint; elytra two-fifths longer than wide, with parallel, feebly arcuate sides and rounded apex, very slightly wider than the prothorax; striæ sharp, not very fine, deep, the intervals nearly flat; male with the anterior tarsi black, only very moderately

dilated. Length (♂) 6.5 mm.; width 2.85 mm. Canada (Manitoba). One specimen.

This species may follow the last in the lists, but it is very conspicuously characterized and not closely related to any other.

Celia winnipegensis n. sp.—Oblong-oval, convex, very shining and bright æneous, the under surface, legs and all the tarsi deep black; head about half as wide as the prothorax, the well-developed eyes moderately convex; apical strioles very fine, linear and slightly oblique; antennæ nearly as long as the head and prothorax, slender, black, the first joint testaceous, the second somewhat piceous; prothorax scarcely more than two-thirds wider than long, the moderately arcuate sides gradually almost parallel basally, the angles slightly obtuse and blunt, with distinct included puncture, which is much nearer the base than side, the apical angles only narrowly rounded at tip; surface almost unimpressed and with a few minute subobsolete punctures at apex, the stria fine, widely biabbreviated; basal impressions very feeble, the inner slightly oblique and linear; elytra three-sevenths longer than wide, subequal in width to the prothorax, the parallel and just visibly arcuate sides gradually obtusely rounded behind, with obtusely ogival apex; striæ moderately fine, sharply impressed, impunctate, the intervals nearly flat; male with the anterior tarsi distinctly dilated. Length (♂) 6.7 mm.; width 3.0 mm. Canada (Winnipeg, Manitoba). One example.

There is also no close analogue of the present species, which may follow the preceding.

Celia govanensis n. sp.—Small, narrow and parallel, rather convex, deep black, without metallic lustre, alutaceous (♀), more polished and of narrower outline (♂); under surface black, the legs pale piceo-rufous; head four-sevenths as wide as the prothorax, with notably prominent eyes and rather deep oblique apical strioles; antennæ somewhat slender, much shorter than the head and prothorax, piceous, gradually paler basally; prothorax subquadrate, about a third wider than long, the parallel sides gradually somewhat strongly rounding apically, all the angles more or less blunt, the posterior a little more than right, with the included puncture small and feeble; surface smooth, almost even, the stria very fine, not attaining the apex; inner basal impression linear, broadly impressed, wholly unlike that of any of the preceding species, extending some distance from the basal margin and sometimes slightly punctulate, the outer impression rounded and very shallow, both with subcupreous glint; elytra two-fifths longer than wide, scarcely wider than the prothorax, parallel, gradually rounding from slightly behind the middle; striæ very fine, smooth, the intervals flat; anterior tarsi (♂) very moderately dilated, the joints much less evidently diminishing in width than in the preceding section. Length (♂♀) 6.0–6.8 mm.; width 2.5–2.8 mm. Washington State (Govan and Wilbur). Six specimens.

A small slender species, allied to *hilaris*, but without the metallic greenish coloration of that species, with deeper basal thoracic impressions and much more pronounced dilatation of the anterior male tarsi.

Celia fragilis n. sp.—Narrow and convex, polished and bright æneous, the under surface black; legs rufous; head fully three-fifths as wide as the prothorax, with moderately prominent eyes and small fine oblique strioles; antennæ slender,

not quite as long as the head and prothorax, piceous-black, the basal joints testaceous, but streaked with blackish above; prothorax a third or slightly more wider than long, the sides broadly arcuate, becoming parallel in about basal half, the angles barely more than right, slightly blunt at tip, the included puncture not evident; apical angles narrowly rounded at tip; surface very smooth and unimpressed, but with a few punctures toward base except medially, the stria very fine and broadly biabbreviated; inner basal impression broad and shallow from the base, the outer small, shallow and rounded; elytra parallel, with very feebly arcuate sides, two-fifths longer than wide, just visibly wider than the prothorax and obtusely rounded behind; surface less polished in the female; striæ very fine, impunctate; male with the anterior tarsi moderately dilated. Length (♂ ♀) 5.6–6.5 mm.; width 2.2–2.6 mm. Washington State (Wilbur and Govan) and British Columbia. Ten specimens.

Allied somewhat to the preceding but smaller, narrower and with very bright æneous lustre.

Celia frugalis n. sp.—Oblong, more abbreviated, convex, polished, bright bronzy-æneous above, deep black beneath throughout, the tibiæ and tarsi slightly piceous; head four-sevenths as wide as the prothorax, with rather prominent eyes and narrow oblique strioles; antennæ piceous, the two basal joints testaceous, shorter than the head and prothorax, the medial joints one-half longer than wide; prothorax four-sevenths wider than long, the sides moderately arcuate, becoming gradually parallel in about basal half, the angles slightly more than right but sharp, the puncture small and feeble; surface everywhere impunctate, with vestiges of transverse impressions medially, the stria very fine; basal impressions distinct, the inner linear, the outer broadly sublinear and oblique; elytra scarcely over a third longer than wide, barely visibly wider than the prothorax, obtuse behind; striæ very fine but sharp, impunctate, the scutellar free at tip; intervals flat; anterior male tarsi moderately dilated, black. Length (♂) 5.35 mm.; width 2.2 mm. Canada (Manitoba).

The elytra in the type are each transversely and deeply indented along the base; presumably this is wholly an accidental deformity, although symmetrical. This species belongs near *fragilis*, but it is much more abbreviated in outline.

Celia explanatula n. sp.—Form short, oblong, moderately convex and pale-testaceous throughout, polished, the elytra (♀) feebly alutaceous; head rather large, four-sevenths as wide as the prothorax, with only moderately convex eyes and deep oblique strioles, the neck broad; antennæ slender, nearly as long as the head and prothorax, testaceous, the medial joints about twice as long as wide; prothorax fully four-fifths wider than long, the sides nearly straight and parallel, gradually somewhat strongly rounding in apical half to the distinctly rounded tips of the angles, the basal angles right and sharp, the included puncture strong, equidistant from base and side; surface smooth though moderately punctured latero-basally and broadly explanate toward the basal angles, not distinctly impressed transversely; stria fine, entire; basal impressions distinct, the inner linear, not basal, the outer rounded and rather deep; elytra only between a fourth and third longer than wide, rather evidently wider than the prothorax, obtusely rounded behind; striæ fine, sharply defined, impunctate, the broad intervals flat, the scutellar stria deep and oblique. Length (♀) 7.0 mm.; width 3.15 mm. British Columbia.

This species is allied only to *laxicollis*, but differs in its smaller size, much more abbreviated elytra, smaller basal thoracic foveæ and more even and marked latero-basal thoracic explanature.

Celia maneei n. sp.—Rather stout, oblong-suboval, convex, testaceous throughout and shining, the elytra (♀) faintly alutaceous; head four-sevenths as wide as the prothorax, with moderately prominent eyes and coarse oblique strioles; antennæ short and somewhat thick, barely more than one-half longer than the head, the medial joints scarcely one-half longer than wide; prothorax three-fourths wider than long, the moderately and subequally arcuate sides gradually subparallel posteriad, feebly incurvate at base, the angles slightly obtuse and somewhat blunt, the included puncture coarse, slightly further from side than base; apex only moderately sinuate, with rounded angles; surface smooth, the fine stria not quite attaining the apex; basal impressions involved in a few punctures, the inner linear, moderate and discal, the outer rounded and very shallow; elytra oval, two-fifths longer than wide, the sides gradually arcuate and obtusely ogival behind about the middle; striæ fine, impunctate, the scutellar free; intervals flat. Length (♀) 7.4 mm.; width 3.5 mm. North Carolina (Southern Pines),—Manee.

Not closely allied to any other species, but it may be placed near the much smaller *schotti*, being distinguished by its larger head and much shorter antennæ, among other peculiarities.

Celia tahomæ n. sp.—Somewhat ventricose, shining, piceous, the under surface nearly black, the propleura and legs rufous; head four-sevenths as wide as the prothorax, with very thick neck and moderate, not very convex eyes, the strioles distinct and oblique; antennæ slender, testaceous, not quite as long as the head and prothorax, the medial joints more than twice as long as wide; prothorax relatively rather small, three-fourths wider than long, the sides straight and parallel, moderately arcuate in about apical half, the basal angles slightly obtuse and not very sharp, the included puncture moderate, close-set and equidistant from base and side; surface very feebly impressed at apex, the stria fine, not quite entire, the basal impressions linear, moderate, involved in some punctuation, the inner narrow, the outer broad; elytra with parallel arcuate sides and gradually rounding apex, two-fifths longer than wide and a fourth or fifth wider than the prothorax; striæ sharply defined but very fine, impunctate, the scutellar bi-attached; intervals very flat, faintly alutaceous. Length (♀) 7.0 mm.; width 3.2 mm. Washington State (Wawawai).

A distinct species of the *terrestris* section, but shorter and much more ventricose than that species.

Celia washoeana n. sp.—Oblong, convex, highly polished (♂), feebly alutaceous (♀), testaceous throughout; head four-sevenths as wide as the prothorax, with moderately prominent eyes and distinct oblique strioles; antennæ testaceous, as long as the head and prothorax, the medial joints obconical and between two and three times as long as wide; prothorax scarcely over two-thirds wider than long, widest beyond the middle, the sides broadly rounded, gradually oblique and straight in about basal half, the angles barely more than right, but with very sharp and minutely subprominent tips; surface with both transverse impressions at least evident, the stria fine; basal impressions involving a few punctures, the inner fine, linear and very distant from the base, the outer small, deep and

rounded; elytra oblong-oval, gradually rounded behind, two-fifths longer than wide and slightly wider than the prothorax, the striæ moderately fine, sharply defined and deep, impunctate; intervals flat (♀), very nearly so (♂). Length (♂ ♀) 5.9–6.7 mm.; width 2.6–2.8 mm. Nevada.

Also belongs to the *terrestris* section, but easily distinguishable by the shape of the prothorax and the unusually sharply defined hind angles.

Celia cervicalis n. sp.—Rather narrowly oblong-oval, convex, polished, piceous-black, the elytra and hind body beneath black, the epipleura and legs testaceous; head fully as long as wide and not quite four-sevenths as wide as the prothorax, with moderately prominent eyes, distinct oblique strioles and broad neck; antennæ slender, testaceous, the medial joints two and one-half times as long as wide; prothorax three-fifths wider than long, the sides broadly rounding beyond, and straighter and parallel behind, about the middle, the hind angles slightly more than right, sharp and with feeble included puncture, the tips of the anterior angles rounded; surface with vestiges of broad diffuse transverse impressions, the distinct stria slightly biabbreviated; basal foveæ both large, shallow and distinctly punctate; elytra two-fifths longer than wide, a fifth wider than the prothorax, obtusely ogival behind; striæ not very fine, deep, sharp and obscurely micro-punctulate, the intervals polished and flat in the male, the anterior tarsi of which sex are distinctly dilated. Length (♂) 6.9 mm.; width 2.8 mm. Canada (probably Alberta).

A small member of the *terrestris* section, allied to *brumalis*, but smaller and much narrower. The larger *paganica* of this section, described from Marquette, Mich., occurs also in Saskatchewan.

Celia pugetana n. sp.—Stout, oblong-suboval, convex, shining and deep black, the legs piceous-black, with paler coxæ; head four-sevenths as wide as the prothorax, with moderately prominent eyes and small slender oblique strioles; antennæ almost as long as the head and prothorax, rather slender, piceous, gradually pale testaceous basally, the medial joints a little more, on narrow side, or less on compressed side, than twice as long as wide; prothorax not quite two-thirds wider than long, the sides subparallel basally but thence converging and feebly arcuate to the rounded apical angles, the basal angles nearly right, slightly blunt, with large setigerous puncture almost as near side as base; surface with very feeble undefined transverse impressions and fine, anteriorly much abbreviated, stria; latero-basal region wholly punctureless, the impressions small, the inner coarsely linear, the outer fine, linear and oblique; elytra a fifth or sixth wider than the prothorax, two-fifths longer than wide, gradually obtusely ogival in apical two-fifths; striæ fine but sharply defined, impunctate, the intervals nearly flat, polished. Length (♂) 7.2 mm.; width 3.1 mm. Washington State (Wawawai).

At first I associated this species with *nevadica*, with which it agrees very closely in size, form and general habitus, but the eyes are very much less prominent; *nevadica*, described from Reno, occurs also at Stockton, Utah.

Celia idahoana n. sp.—Smaller and much narrower, shining, deep black, the legs rufous; head small, barely more than half as wide as the prothorax, with

notably prominent eyes as in *nevadica*, the oblique apical strioles distinct; antennæ testaceous throughout, as long as the head and prothorax, the medial joints fully twice as long as wide; prothorax narrow, only one-half wider than long, the sides broadly arcuate throughout, a little more so anteriad, the basal angles slightly obtuse but well defined, the included puncture distinct; surface with vestiges of transverse impressions, having very few fine punctures latero-basally, the basal impressions moderate though rather deep, the inner discal and linear, the outer rather large, deep and rounded; elytra barely visibly wider than the prothorax, two-fifths longer than wide, gradually rounded behind about the middle; striæ moderately fine, sharply defined and deep, the inner feebly and indistinctly punctulate. Length (♂) 6.0 mm.; width 2.25 mm. Idaho (Moscow).

Quite distinct from any other of the *nevadica* section in its much narrower form and less transverse prothorax; the elytral intervals are virtually flat, even in the male, the anterior tarsi of which sex are wanting in the unique type.

Celia parowana n. sp.—Narrowly oblong, convex, polished and deep black, without metallic lustre; under surface and femora deep black, the tibiæ and tarsi piceo-rufous; head well developed, four-sevenths as wide as the prothorax, with notably prominent eyes and coarse and deep, slightly oblique strioles; antennæ rather thick, about as long as the head and prothorax, piceous, the first three joints testaceous, the medial joints on the flattened side not quite twice as long as wide; prothorax three-sevenths wider than long, the sides parallel and very evenly, moderately arcuate throughout; apex slightly narrower than the base, feebly sinuate, with broadly rounded angles; basal angles more than right, blunt, the puncture large, deep and equidistant; surface even, with very fine stria, the latero-basal impressions very distinct, the outer rounded and punctiform, the neighboring region with distinct separated punctures; elytra with feebly arcuate sides and obtusely rounded apex, only a third longer than wide and very slightly wider than the prothorax; striæ fine but sharp and deep, the scutellar moderate, curved; intervals virtually flat; anterior male tarsi well dilated, brown, the joints decreasing but slightly in width. Length (♂) 6.5 mm.; width 2.8 mm. Utah (Summit of Parowan Mts.),—Knaus.

This species may take its place next to *idahoana*, which it resembles a good deal in form and coloration, but the head is larger and the eyes much more prominent.

Celia minnesotana n. sp.—Body small in size, oblong-suboval, convex and polished throughout in the male, piceo-rufous, the elytra blacker, the under surface and legs pale rufous; head small, scarcely over half as wide as the prothorax, with moderate but notably prominent eyes and subobsolete strioles; antennæ not very slender, not quite as long as the head and prothorax, pale testaceous, the medial joints obconic and twice as long as wide; prothorax three-fifths wider than long, the sides notably arcuate, more converging anteriorly but also somewhat toward base, widest near basal two-fifths; basal angles obtuse and blunt, with large included puncture; apex only feebly sinuate, with widely rounded angles; surface very smooth, not transversely impressed, with very fine stria; latero-basal region with sparse fine punctures, the inner impression feeble, short and linear, the outer minute and subobsolete; elytra with parallel and feebly arcuate sides and obtusely rounded apex, scarcely wider than the widest part of the prothorax; striæ moderately strong, sharply grooved and

evidently, though not conspicuously, punctate, the intervals not quite flat. Length (♂) 5.4 mm.; width 2.35 mm. Minnesota (Duluth). A single specimen.

This species belongs to the *musculus* group, but is distinguishable at once from any of the allied species by the strongly arcuate or subinflated sides of the prothorax.

Celia piceonitens n. sp.—Suboval, strongly convex, highly polished throughout, rufo-piceous, the legs and under surface paler, rufous; head well developed, nearly four-sevenths as wide as the prothorax, the eyes moderately prominent; anterior strioles very small, fine, oblique; antennæ testaceous, slender, extending slightly behind the thoracic base, the medial joints not quite three times as long as wide; prothorax two-fifths wider than long, the sides slightly converging from base to apex and feebly, subevenly arcuate; apex three-fourths as wide as the base, feebly sinuate, with rather widely rounded angles, the basal angles less broadly rounded, the puncture nearer base than side; surface very smooth, not impressed, with very fine and feeble median stria, which is not quite entire; latero-subbasal impressions virtually obsolete, with very few fine scattered punctures; elytra parallel, with very slightly arcuate sides and evenly rounded apex, having very feeble sinuses, three-sevenths longer than wide and equal in width to the prothorax; striæ moderate, impressed, finely and closely punctate, the scutellar moderate, widely free; intervals feebly convex, more so suturad. Length (♀) 6.5 mm.; width 2.8 mm. North Carolina (Southern Pines),—Manee.

This species should be placed near *volatilis*, but is slightly larger, with less transverse prothorax, having more feebly arcuate sides and similarly few but finer latero-basal punctures, also larger head and especially longer and more slender hind tarsi.

From Hagerstown, Maryland, I have a specimen almost similar to the type of *lubrica*, except that the elytral striæ are coarser and deeper and very much less evidently punctured.

Amara Bon.

The name *acuminata*, given by me to a species of this genus in my revision of a few years ago, is preoccupied by *acuminata* Payk. and I therefore substitute the name *acuticauda* (n. n.) for the former; it is an isolated species, not at all closely allied to any other and I assume that Paykull's species is a true *Amara*. The following species have been received during the past few years, as contributions of several correspondents. Of the species here described only *oodiformis*, *convergens*, *pullmani*, *microcephala*, *recticollis*, *wadei* and *obliqua* have the scutellar stria proceeding from a definite puncture.

Amara oodiformis n. sp.—Elongate-suboval, convex, rather shining, deep black, the under surface with slightly greenish tinge, the legs piceous; head small, not quite half as wide as the prothorax, the eyes well developed but only moderately prominent, the anterior impressions somewhat diffuse; antennæ

extending slightly behind the thoracic base, blackish, with the first three joints pale; prothorax barely more than a third wider than long, the sides converging from base to apex and rather feebly arcuate, gradually just visibly more so apically, the hind angles slightly blunt, the puncture but little nearer the base than side; apex two-thirds as wide as the base, deeply sinuate, with distinct and slightly blunt angles; surface smooth; transverse impressions wide and feeble, the median line very fine, biabbreviated; impression within lateral fourth distant from base, short and narrowly linear, the outer linear, feeble and oblique; elytra not quite one-half longer than wide, at the middle of the feebly arcuate sides just visibly wider than the prothorax, the apex well rounded, with short deep sinuses; striæ fine, not punctured, the scutellar rather long, proceeding from a coarse isolated puncture; intervals barely more than flat; tarsi notably slender. Length (♀) 8.0 mm.; width 3.75 mm. Idaho (Ibo),—Wade. One example.

A very distinct species, coming near *difficilis* Lec., but slightly shorter, with much longer prothorax, having sharper apical angles and differing also in many other ways.

Amara convergens n. sp.—Oblong-suboval, convex and polished, bright æneous, the under surface shining, greenish-black on the hind body, the propleura and legs rufous; head a little less than half as wide as the prothorax, with only moderately prominent eyes and small fine parallel strioles; antennæ about as long as the head and prothorax, slender, black, the first three joints and base of the fourth pale testaceous, the medial joints more than twice as long as wide; prothorax long, scarcely two-fifths wider than long, the sides converging from base to apex and evenly, feebly arcuate; apex deeply sinuate, with only narrowly blunt angular tips; basal angles less than right, rather sharp, the included puncture large, more distant from side than base; surface smooth, the very fine stria greatly abbreviated at apex; basal impressions without attendant punctures, small and very feeble, the inner short, finely linear and remote from the base; elytra one-half longer than wide, parallel, as wide as the prothorax, rapidly ogivally rounded at tip; striæ fine but sharp, impunctate, the intervals just visibly convex; male anterior tarsi strongly dilated, the joints rapidly smaller from the base. Length (♂) 8.3 mm.; width 3.75 mm. British Columbia.

Easily identifiable by the brilliant æneous lustre and form of the prothorax, as well as antennal structure and coloration.

Amara neoscotica n. sp.—Outline somewhat as in the preceding but narrower, rather convex, polished and bright bronze above, the entire under surface and legs pale testaceous; head and prothorax very faintly picescent; head wider, about half as wide as the prothorax, the eyes very moderate and but slightly convex; strioles slightly oblique; mandibles rufous, with blackish tips; antennæ almost as long as the head and prothorax, slender, piceous, the first three joints testaceous; medial joints two and one-half times as long as wide; prothorax three-sevenths wider than long, the sides feebly arcuate, gradually a little more so anteriad, subparallel broadly toward base, the apical angles slightly blunt, the basal narrowly rounded at tip, right, the included puncture large, remote from side but adjacent to base; surface smooth, uneven and feebly rugulose to smooth latero-basally, without definable impressions; elytra as wide as the prothorax, three-sevenths longer than wide, obtusely rounding in about apical third; striæ very fine and shallow, though well defined and not evidently punctulate; intervals broad and flat; anterior male tarsi well dilated, the joints decreasing but slightly, the first two equal, the third a little smaller. Length (♂) 8.0 mm.; width 3.3 mm. Nova Scotia.

Allied only to the preceding, but differing in the parallel basal parts of the prothorax, with unusual position of the latero-basal setigerous puncture, in coloration and many other features.

Amara viridula n. sp.—Form oblong, parallel, stout and strongly convex, polished and greenish-black above, black throughout beneath, the legs wholly black; head nearly half as wide as the prothorax, the eyes well developed, distinctly prominent, the strioles distinct, oblique; antennæ slender, but evidently shorter than the head and prothorax, black, the first joint testaceous, the second piceous, the medial joints fully twice as long as wide; palpi black; prothorax fully three-fourths wider than long, the sides broadly and subevenly arcuate, a little less so and subparallel basally, the basal angles right and slightly blunt, the deep puncture further from side than base; surface very smooth, the latero-basal region wholly punctureless, the inner fovea short and fine, linear, the outer a large and very shallow indentation; elytra not quite one-half longer than wide, parallel, broadly rounded at tip, equal in width to the prothorax; striæ distinct, incised, impunctate; intervals feebly convex to nearly flat. Length (♂) 7.2–7.8 mm.; width 3.2–3.8 mm. Canada (Alberta). Two specimens.

This species stands alone in general appearance and relationship, but may be placed next to *mystica* in the list. The second specimen, although apparently specifically identical, is notably narrower in outline than the type, and with less convex strial intervals. The anterior male tarsi are well dilated, the joints gradually diminishing in width.

Amara oblongiformis n. sp.—Elongate, parallel, convex, polished, the coloration throughout nearly as in the preceding, except that the lustre of the upper surface is obscurely bronzed; head a little larger, fully half as wide as the prothorax, the eyes not quite so developed, only very moderately prominent; antennæ slender, not quite as long as the head and prothorax, black, the first and second joints piceo-testaceous; prothorax longer, about one-half wider than long, the sides nearly similar, the basal angles right and not appreciably blunt, the included puncture very close-set and equidistant from side and base; surface and impressions nearly similar; elytra much longer though of nearly similar shape, one-half longer than wide, as wide as the prothorax; striæ fine but distinct, deeply incised and impunctate, the intervals virtually flat; anterior male tarsi nearly as in the preceding. Length (♂) 8.5 mm.; width 3.7 mm. Washington State (Govan). One specimen.

This species may be placed next to the preceding, from which it differs in its much more elongate form and in the nature of the metallic lustre of the upper surface.

Amara leviceps n. sp.—Oblong-suboval, convex, polished, deep black throughout, sometimes with slightly æneous lustre, the legs and palpi black; head short, wider than long, only about three-sevenths as wide as the prothorax, the eyes rather large and strongly convex; antennæ long and very slender, black, the basal joint piceo-testaceous, the medial joints nearly three times as long as wide; prothorax fully two-thirds wider than long, the sides distinctly converging from base to apex, evenly and distinctly though not strongly arcuate; basal angles right, scarcely blunt, the sharply marked puncture remote from the side—twice

as far as from base; surface very smooth and punctureless, not evidently impressed even latero-basally; median stria extremely fine and widely biabbreviated; elytra three-sevenths longer than wide, equal in width to the prothorax; striæ extremely fine, punctureless, the intervals flat; anterior male tarsi rather feebly dilated, very much less so than in the two preceding; body much smaller in size. Length (♂) 6.7 mm.; width 2.9 mm. Washington State (Govan and Wilbur). Two specimens.

Recognizable at once by the small size, deep black or feebly æneous smooth convex surface and small head; it may be placed with the two preceding. The five following species may also follow in succession:

Amara pullmani n. sp.—Elongate-suboval, convex and strongly shining, greenish-black, the elytra dull bronzed; under surface and legs throughout black; head as long as wide, scarcely at all over half as wide as the prothorax, with moderately prominent eyes and fine, remote and oblique strioles; antennæ fully as long as the head and prothorax, slender, piceous, the first three joints and base of the fourth testaceous, the medial joints twice as long as wide; prothorax rather long, barely one-half wider than long, the sides moderately arcuate, gradually almost parallel and nearly straight posteriad; basal angles right, sharp, the puncture moderate, subequidistant from side and base, the tips of the apical angles well rounded; surface not impressed, impunctate, with fine biabbreviated stria, the lateral impressions subobsolete, barely traceable; elytra nearly one-half longer than wide, just visibly wider than the prothorax, with feebly arcuate sides and gradually ogival apex; striæ very fine but evident, impunctate, the scutellar long, free; intervals nearly flat; anterior male tarsal joints moderately dilated. Length (♂) 7.2 mm.; width 3.25 mm. Washington State (Pullman).

Distinguishable by the elongate-oval form, smooth and shining surface, long antennæ and rather long prothorax, with feebly and subevenly arcuate sides.

Amara acomana n. sp.—Broader than *pullmani*, oblong, parallel, rather convex, very shining and deep black, without metallic lustre of any kind, the under surface and legs throughout deep black; head well developed, four-sevenths as wide as the prothorax, with prominent eyes and very fine subparallel strioles; antennæ slender, almost as long as the head and prothorax, piceous, the first joint testaceous, the second more piceous, the medial joints more than twice as long as wide; prothorax fully three-fifths wider than long, the sides distinctly arcuate, gradually becoming parallel and almost straight basally, the angles right, slightly blunt, the puncture coarse and closely equidistant, the apical angles narrowly blunt at tip; surface nearly smooth, the stria very fine, the lateral impressions very shallow and vague, impunctate; elytra three-sevenths longer than wide, barely at all wider than the prothorax, obtuse at tip, the sides almost straight; striæ very fine but sharp, impunctate, the scutellar not quite free; intervals virtually flat; anterior male tarsi rather strongly dilated, the joints diminishing rapidly in width. Length (♂) 8.0 mm.; width 3.5 mm. New Mexico (Maxwell).

Broader and more parallel in form than *pullmani*, with straighter sides and shorter prothorax, also with somewhat differently colored antennæ.

Amara sodalicia n. sp.—Elongate-suboval, convex and strongly shining, the elytra scarcely at all alutaceous, even in the female, bright bronzed throughout above, shining and greenish-black beneath, the legs black; head smaller, barely half as wide as the prothorax, the eyes only moderately prominent, the strioles short and oblique; antennæ much shorter, two-thirds longer than the head, black, the first joint piceous, the medial joints one-half longer than wide; prothorax but little more than one-half wider than long, the sides subevenly and feebly arcuate, less so basally but not becoming quite parallel; basal angles right, with blunt tips, the deep puncture distinctly further from side than base; surface smooth, wholly impunctate, the stria extremely fine; basal impressions subobsolete, the outer slightly traceable as a feeble irregular indentation; elytra two-fifths longer than wide, as wide as the prothorax, with nearly straight sides and gradually ogival apex; striæ fine but impressed, impunctate, the scutellar long, free; intervals evidently somewhat convex. Length (♀) 7.5 mm.; width 3.25 mm. New Mexico (Maxwell). One specimen.

Easily distinguishable from the last by the smaller head, much shorter antennæ and more convex strial intervals, notwithstanding the sex, they generally being more convex in the male.

Amara microcephala n. sp.—Oblong-suboval, convex and strongly shining, feebly bronzed above, the under surface and femora greenish-black, the tibiæ and tarsi rufo-piceous; head notably small, distinctly less than half as wide as the prothorax, with well-developed and moderately prominent eyes and very short oblique strioles; antennæ slender, not quite as long as the head and prothorax, piceous, the first three joints and basal half of the fourth testaceous, the medial joints about twice as long as wide; prothorax not quite one-half wider than long, the sides subparallel in basal, rapidly oblique and moderately arcuate in apical, half; basal angles right, with finely blunt tips, the included puncture well developed, more distant from side than base, the apical angles only very narrowly blunt at tip; surface smooth and impunctate, with vestiges of transverse impressions and fine biabbreviated stria; basal impressions feeble but traceable, especially the inner; elytra two-fifths longer than wide, as wide as the prothorax, the sides parallel and faintly arcuate, the apex obtusely ogival; striæ rather fine but strong, impunctate, the scutellar with puncture, moderately free; intervals not quite flat; anterior male tarsi rather strongly dilated, the joints not very rapidly diminishing in width. Length (♂) 6.4–6.9 mm.; width 3.15–3.25 mm. North Carolina (Southern Pines),—Manee. Three specimens, all males.

This species is rather isolated and may be identified readily by the very small head and subimpressed elytral striæ, as well as the puncture of the scutellar stria.

Amara recticollis n. sp.—Oblong-suboval, strongly convex, polished, somewhat greenish-bronzed; under surface and femora deep black, the tibiæ and tarsi rufo-piceous; head very nearly though not quite half as wide as the prothorax, with rather prominent eyes; antennæ slender, but not as long as the head and prothorax, piceous, the first three or four joints testaceous, the medial joints about twice as long as wide; prothorax long, not quite one-half wider than long and with the long feebly converging sides unusually straight, gradually moderately arcuate beyond about the middle; basal angles right, very slightly blunt, the large puncture twice as far from side as base; apex deeply sinuate, the angles only narrowly blunt at tip; surface smooth and impunctate, the short rectilinear inner basal impression alone visible, the median stria extremely fine, subentire:

elytra two-fifths longer than wide, parallel, at the middle of the very feebly arcuate sides just visibly wider than the prothorax; apex rather obtuse; striæ rather fine but sharply incised, impunctate, the scutellar long, free, with anterior puncture; intervals virtually flat; anterior male tarsi distinctly dilated. Length (♂) 7.8 mm.; width 3.75 mm. North Carolina (Southern Pines),—Manee. One specimen.

This very distinct species may be placed next to *microcephala*, because of coloration of the body, legs and antennæ and presence of a scutellar strial puncture.

Amara wadei n. sp.—Smaller, elongate-subelliptic, convex, polished, greenish-black, the under surface and femora black, the coxæ, tibiæ and tarsi piceo-testaceous; head small, scarcely half as wide as the prothorax, with moderately prominent eyes and short subparallel strioles; antennæ slender, almost as long as the head and prothorax, piceous, the three basal joints pale testaceous, the medial joints between two and three times as long as wide; prothorax long, only three-sevenths wider than long, the sides evenly converging from base to apex and feebly, subevenly arcuate; basal angles right, slightly blunt at tip, the puncture discal, further from side than base; surface very smooth, impunctate, the stria very fine, not entire; basal impressions very shallow and vague, the inner slightly the more visible, though diffuse; elytra fully three-sevenths longer than wide, barely wider than the prothorax, gradually rounding behind from about the middle; striæ moderate, deep, impressed, subexarate at apex, impunctate, the scutellar free; intervals just visibly convex. Length (♀) 6.5–6.7 mm.; width 3.0–3.2 mm. Maryland (Hagerstown),—J. S. Wade. Two specimens.

The evenly converging and subevenly, feebly arcuate sides of the prothorax and very shining surface, even in the female, will serve to identify this species whenever found.

The following species somewhat resembles *wadei* in the oblique thoracic sides but it is much narrower and with larger head:

Amara obliqua n. sp.—Narrow, elongate-oval, convex, shining, deep black above and beneath, the legs wholly black; head rather well developed, distinctly more than half as wide as the prothorax, with rather large and prominent eyes, the strioles deep, oblique; antennæ not quite as long as the head and prothorax, black, the first three joints and base of the fourth pale testaceous, the medial joints distinctly over twice as long as wide; prothorax shorter, slightly more than one-half wider than long, the sides subevenly and very moderately arcuate, not becoming quite parallel basally, the basal angles right, finely blunt at tip, the puncture subequidistant from side and base; surface smooth, impunctate, the stria extremely fine; basal impressions very feeble but evident, small, the inner short, linear, the outer somewhat rounded; apex more shallowly sinuate and with more broadly rounded tips of the angles; elytra as wide as the prothorax, gradually rounding behind, three-sevenths longer than wide, the striæ very fine, impunctate, the scutellar widely free; intervals almost but not quite flat, polished. Length (♂) 7.3 mm.; width 3.0 mm. British Columbia. One specimen.

The anterior tarsi in the male are moderately though very distinctly dilated, and the species is not closely related to any other.

Amara inflaticollis n. sp.—Oblong-suboval, convex, polished, bronzed above, the under surface black, the legs obscure rufous throughout; head not quite

half as wide as the prothorax, with moderately prominent eyes and subobsolete and very oblique strioles; antennæ nearly as long as the head and prothorax, piceous, the first three joints and base of the fourth dark testaceous, the medial joints about twice as long as wide—more on the narrow side; prothorax large, not quite one-half wider than long, the sides feebly converging and very moderately, evenly arcuate from base to apex, the basal angles nearly right but broadly blunt, the deep puncture slightly further from side than base; apex deeply sinuate; surface smooth, not evidently impressed, the stria fine, impressed; latero-basal regions unevenly and very shallowly impressed, impunctate; elytra parallel, with straight sides and obtusely rounded apex, scarcely two-fifths longer than wide, not quite as wide as the prothorax; striæ fine but sharp and rather deep, impunctate, the scutellar moderate, free, somewhat disrupted; intervals flat, polished; anterior male tarsi very moderately dilated, black. Length (♂) 6.5 mm.; width 2.7 mm. Canada (Manitoba).

The large prothorax, evidently wider than the elytra, absence of definable pronotal impressions and other characters, as stated, will render this species easy to identify.

Amara subarctica n. sp.—Oblong, convex, moderately shining, deep black, without metallic lustre; under surface and legs black; head well developed, very slightly more than half as wide as the prothorax, the eyes only very moderately convex, the strioles short, oblique; antennæ slender, piceous, the first two joints testaceous; prothorax four-sevenths wider than long, the distinctly arcuate sides gradually becoming straighter and almost parallel basally; basal angles obtuse and blunt, the puncture adjacent to base but remote from side; apex deeply sinuate, with but slightly blunt angular tips; surface smooth, impunctate, with extremely fine stria, the latero-basal impressions moderate, the inner short, deep and finely linear, remote from base, the outer large, rounded and very shallow; elytra three-sevenths longer than wide, barely visibly wider than the prothorax, parallel, gradually obtusely rounded behind; striæ very fine, impunctate, the scutellar long, free; intervals flat; anterior male tarsi well dilated, the joints moderately decreasing, the first rather longer than wide. Length (♂) 7.9 mm.; width 3.5 mm. Canada (Saskatchewan).

This species may be placed near *ebenina*, but it has the puncture at the thoracic hind angles in very different position.

Amara cockerelli n. sp.—Oblong, convex and shining, deep black, with the feeblest possible bronzy lustre; under surface and femora black, the epipleura dark testaceous, the tibiæ and tarsi rufo-piceous; head only slightly over half as wide as the prothorax, with prominent eyes and distinctly incised short oblique strioles; antennæ evidently shorter than the head and prothorax, slender, piceous, the first three joints and base of the fourth testaceous, the medial joints not quite twice as long as wide; palpi black; prothorax four-sevenths wider than long, the arcuate sides gradually becoming parallel near the base, the angles right and but finely blunt, the distinct puncture very close-set in the angle; apex moderately sinuate, with broadly rounded angular tips; surface smooth, impunctate, with extremely fine imperfect stria, the latero-basal impressions distinct, the inner a short incised line remote from the base, the outer a deep oblique concavity; elytra barely at all wider than the prothorax, only a third longer than wide, parallel, rapidly and obtusely rounded behind; striæ very fine, impunctate, the scutellar short, free at both ends in the type; intervals nearly but not quite flat. Length (♀) 7.0 mm.; width 3.15 mm. Colorado (Jimtown),—T. D. A. Cockerell.

Allied to *convexa* Lec., but differing in the entire absence of the characteristic metallic lustre of that species and in its much larger head, among other features.

Polita Lec., has an apparently far greater range than *convexa*, which is a much broader species; *polita* occurs, according to the material at hand, from Boulder, Colo., to Quebec. It may be added here that *lacustrina* Csy., also has a wide geographic range—from Lake Superior to British Columbia.

Amara breviformis n. sp.—Short, oblong, very convex and highly polished, bright æneo-cupreous, the elytra more greenish; under surface and legs deep piceo-rufous; head fully four-sevenths as wide as the prothorax, with very prominent eyes and short, not very oblique strioles; antennæ not quite as long as the head and prothorax, piceous, with the first three joints testaceous, the medial joints obconic and slightly less than twice as long as wide; prothorax one-half wider than long, the parallel sides almost evenly and moderately arcuate, the greatest width rather behind the middle; basal angles more than right, scarcely at all blunt, the puncture rather close-set to side and base; apex very moderately sinuate, with broadly rounded angular tips; surface nearly smooth, impunctate, with fine stria, the latero-basal impressions moderate, the inner linear and more distinct; elytra barely more than a fourth longer than wide, shorter than in any other species, parallel, with arcuate sides and rapidly very obtuse apex, about a sixth wider than the prothorax; striæ fine but deeply incised, impunctate, the scutellar free behind; intervals flat, somewhat concave subapically; anterior male tarsi well dilated. Length (♂) 5.7 mm.; width 2.65 mm. Colorado (Boulder),—T. D. A. Cockerell. One specimen.

This species is not closely allied to any other, but may be placed among the *convexa* and *polita* series.

Amara carriana n. sp.—Oblong, convex, polished, obscurely bronzed; under surface and legs deep black, the tibiæ piceo-rufous; head about half as wide as the prothorax, with only very moderately convex eyes; antennæ very nearly as long as the head and prothorax, black, the first two joints and base of the third testaceous, the medial joints fully twice as long as wide; prothorax barely more than one-half wider than long, the sides broadly arcuate, less so and gradually subparallel basally, the angles more than right, obtuse, the puncture strong, remote from side, adjacent to base; width at base somewhat greater than that of the elytral base; apical angles with only narrowly blunt tips; surface feebly impressed and obsoletely subpunctate near apex and along the base, with fine abbreviated stria ending anteriorly in a small punctiform dilatation; latero-basal impressions feeble and linear, the outer oblique; elytra three-sevenths longer than wide, parallel, as wide as the prothorax, rapidly obtusely rounding behind; striæ not very fine, broadly and distinctly impressed and distinctly punctured; intervals broadly convex, more distinctly toward the sides; anterior male tarsi well dilated, the joints decreasing but slightly. Length (♂) 7.3 mm.; width 3.1 mm. Canada (Edmonton, Alberta),—F. S. Carr.

There is no described species with which this can be in any way closely compared, but it may be placed near *subpunctata* in the list.

Triæna Lec.

The species of this genus are of a rather narrow elongate form as a rule, very much as in the *aurata* group of *Celia*, but the special modification of the anterior tibial spur seems to distinguish them constantly, and the genus is therefore valid. The three following undescribed species have recently come to light:

Triæna lawrenceana n. sp.—Narrowly oblong-suboval, convex, shining, bright bronze in lustre, the under surface and femora black, the tibiæ and tarsi dark red-brown; head fully four-sevenths as wide as the prothorax, with well-developed and rather prominent eyes and deep oblique strioles; antennæ long, somewhat longer than the head and prothorax, black, the first three joints and base of the fourth pale testaceous; medial joints between two and three times as long as wide; prothorax only two-fifths wider than long, the subparallel sides distinctly and evenly arcuate, a little more converging apically, wider near the middle than at base, the angles right and sharp, the puncture not distinct; apex only feebly sinuate, with blunt angles; surface finely, feebly punctulate latero-basally, the stria strong, biabbreviated; basal foveæ distinct, broadly and shallowly impressed, the inner with a short incised median line, distant from base; elytra not quite one-half longer than wide, rather obtusely rounded at apex, just visibly wider than the prothorax, the parallel sides broadly and feebly arcuate; striæ fine, rather impressed, not punctate though minutely and feebly irregular, the scutellar proceeding from a distinct discal puncture; intervals broadly, feebly convex; anterior male tarsi black, distinctly dilated, the third joint oval, longer than wide. Length (♂) 6.4 mm.; width 2.6 mm. New York (Ogdensburg). One specimen.

May be placed near *angustata*, but with narrower prothorax, of very different shape, being widest near the middle. The middle tibiæ in the male have a few minute inner tubercles toward tip, and the posterior are densely pubescent within, except basally, indicating that the genus is much more closely allied to *Amara* than to *Celia*.

Triæna irregularis n. sp.—Form and size somewhat as in the preceding, convex, shining, metallic-greenish, the elytra more bronzed; under surface and legs as in the preceding; head fully four-sevenths as wide as the prothorax, somewhat larger than in the preceding, with the eyes even larger but less convex and but slightly prominent; antennæ somewhat longer than the head and prothorax, similar in coloration, but with the joints not quite so long, about twice as long as wide; prothorax broader but of similar outline and sculpture, nearly one-half wider than long, the apex however much broader, feebly sinuate, with very blunt angles; elytra scarcely three-sevenths longer than wide, obtuse at apex, slightly wider than the prothorax, with parallel and evidently arcuate sides; striæ impressed, minutely punctulate or unevenly broken, the scutellar similar; intervals distinctly convex; anterior male tarsi strongly dilated, the joints moderately decreasing, the third somewhat wider than long. Length (♂) 6.25 mm.; width 2.8 mm. Washington State. One specimen.

Closely allied only to the preceding but a little broader, with the antennæ slightly less elongate and the eyes much less convex,

the elytral striæ more broken and the structure of the anterior male tarsi different, as seen especially in the third joint.

Triæna parallela n. sp.—Body smaller and much narrower, parallel and nearly straight at the sides, moderately convex, polished, greenish-metallic, the elytra obscurely bronzed; under surface black, the entire legs and epipleura dark rufous; head moderate, a little more than half as wide as the prothorax, the eyes notably prominent, the strioles long and rather broadly impressed; antennæ longer than the head and prothorax, colored nearly as in the two preceding, the medial joints between two and three times as long as wide; prothorax three-sevenths wider than long, just visibly wider near the middle than at base, the sides very feebly arcuate, distinctly converging toward apex; basal angles feebly prominent, not blunt, the included puncture close-set, minute and feeble; apex very moderately sinuate, the angles scarcely at all blunt; surface smooth, finely, sparsely punctate latero-basally; median stria strong, greatly biabbreviated; basal impressions deep and distinct, the inner broadly impressed, narrower and feebly incised anteriorly; elytra parallel, with nearly straight sides and obtusely rounded apex, about as wide as the prothorax and nearly one-half longer than wide; striæ deep, almost even, or at least not so irregular as in the two preceding, the scutellar proceeding from the usual puncture; intervals almost but not quite flat; anterior male tarsi not darker in color, distinctly dilated, the third joint triangular, with arcuate sides, as wide as long. Length (♂) 6.0 mm.; width 2.3 mm. New York (Lake Champlain).

This is by far the narrowest and most rectilinearly parallel species hitherto discovered, and is not closely allied to any other. It may follow the two preceding in the lists.

Patrobus Dej.

The following species is allied to *tritus* Csy., but is very much longer and with relatively larger head and prothorax:

Patrobus canadensis n. sp.—Less ventricose than either *minuens* or *tritus*, highly polished and deep black, the under surface piceous, the legs bright rufous; head elongate, about two-thirds as wide as the prothorax, with well-developed and very prominent eyes and large deep anterior impressions; antennæ blackish, slightly paler at base, a little more than half as long as the body, the third joint fully two-fifths longer than the fourth, the medial joints between two and three times as long as wide; prothorax large, three-sevenths wider than long, widest near apical third, the sides subevenly rounded, slightly oblique and less so basally, feebly sinuate before the basal angles, which are sharp and right; anterior transverse impression moderate, smooth and impunctate, the posterior vestigial; median line fine, rapidly coarse in basal third; latero-basal impressions large and very deep, rather loosely, not very coarsely punctate, limited outwardly by a moderate and rather short carina; base feebly sinuate medially, slightly oblique laterally, somewhat wider than the feebly sinuate apex, which has broadly rounded angles; elytra two-thirds longer than wide, only about a fourth wider than the prothorax, with parallel, arcuate sides; striæ rather coarse, impressed, closely and rather strongly punctate, the foveæ adjoining the third near basal and apical fourth and just behind the middle; scutellar stria free, punctured; intervals distinctly convex. Length (♂ ♀) 9.5–10.8 mm.; width 3.35–3.8 mm. Canada (Edmonton, Alberta),—Carr.

The first anterior tarsal joint of the male is rather strongly dilated, the second less so and the third and fourth small and undilated.

Holciophorus Lec.

In this genus the form which I described under the name *cephalus* must be regarded as a synonym of *pollens;* other published names of my previous revision, such as *ater* Dej., and *vancouveri*, *domitor* and *pollens* Csy., are however evidently valid species and not subspecies, for they differ strongly among themselves in form, sculpture and other characters.

Hypherpes Chd.

There is a group of small species in this genus, distinguished principally by the unusually small head, such as *jejunus*, *metlakatlæ*, *elumbis* and *restrictus* Csy., as well as *castaneus* Dej. and *scutellaris* Lec. The two following also belong to this group:

Hypherpes terracensis n. sp.—Oblong, subparallel, only very moderately convex, shining, deep black, the anterior legs rufescent distally, especially in the male; head scarcely four-sevenths as wide as the prothorax, elongate, triangular, with rather long neck and moderate, somewhat prominent eyes; parallel apical channels coarse; antennæ longer than the head and prothorax, obscure testaceous, moderately compressed, the third joint with gradual apical swelling; prothorax very nearly as long as wide, the sides broadly arcuate, gradually slightly converging behind and barely visibly sinuate, the hind angles a little more than right, the long seta arising from a dilated puncture; apex evenly and distinctly sinuate, with rounded angles and only a little wider than the base, which is finely, feebly margined, sinuate between the longitudinal basal impressions, which extend through basal third, the outer basal impressions short and feeble; transverse impressions subobsolete, the median line fine but sharply impressed, subentire; elytra only two-fifths longer than wide, nearly a third wider than the prothorax, very obtuse at apex, parallel, with broadly arcuate sides; striæ deeply impressed and with convex intervals, especially toward the sides; scutellar stria extremely short, having the form of an elongate puncture; anterior male tarsi distinctly dilated, the other tarsi slender. Length (♂) 10.5 mm.; width 4.0 mm. British Columbia (Terrace),—Mrs. W. W. Hippisley.

Related to *metlakatlæ* but larger in size, with more elongate head and longer antennæ, also with less arcuate thoracic sides and with deep black, broader, not violaceous and very differently striate elytra.

Hypherpes stoicus n. sp.—Subparallel, moderately convex, deep black, the elytra rather less polished and feebly amethystine in lustre; legs black, the anterior male tarsi barely at all less than black; head slightly over four-sevenths as wide as the prothorax, moderately elongate, the anterior impressions widely separated, oblique and obtusely impressed; eyes very moderate, scarcely at all prominent, the antennæ piceous, more testaceous distally, thick, the feebly, apically inflated third joint two and one-half times as long as wide; prothorax large, about as long

as wide, the sides very moderately arcuate, becoming slightly oblique and broadly, just visibly sinuate posteriad, the angles right and sharp; apex distinctly sinuate, equal in width to the base or barely visibly narrower, the angles rounded; transverse impressions subobsolete; basal impressions deep in basal fourth, the surface feebly impressed near the angles; median line strongly impressed; elytra parallel, with feebly arcuate sides, fully two-thirds longer than wide, about a fifth wider than the prothorax; striæ deeply impressed and with convex intervals, especially laterad; scutellar stria short, oblique and coarsely impressed; anterior male tarsi rather strongly dilated. Length (♂) 12.3 mm.; width 4.65 mm. British Columbia (Inverness).

This species is related to *amethystinus* Mann., especially in general structure and feeble amethystine elytral lustre, but it is larger and broader and with more broadly dilated anterior tarsi in the male than the British Columbia form, which I have assumed to be *amethystinus*, but rather more than possibly misidentified, as the species was described from Sitka Island. *Obsidianus* is also related, but has deep black and much more abbreviated elytra.

The type of *elumbis* is a female and its locality was unrecorded. Recently I have found a male which corresponds very well, though slightly more elongate; it is from Montana.

Hypherpes provensis n. sp.—Oblong, only feebly convex, deep black, shining, the elytra distinctly alutaceous, especially in the female; legs deep black, the anterior male tarsi distinctly dilated, nearly black; head two-thirds as wide as the prothorax, slightly more (♂), moderately elongate; eyes somewhat prominent, the apical impressions decidedly deep, coarse and slightly diverging posteriorly; antennæ black, barely at all paler distally, compressed, the third joint nearly two and one-half times as long as wide; prothorax a fifth wider than long, the sides rather strongly arcuate, oblique basally, becoming feebly sinuate toward the angles, which are slightly more than right and somewhat blunt; apex broadly sinuate; surface with numerous transverse rugulæ, the anterior impression feeble, the posterior obsolete; basal impressions rather long and narrow, feeble toward the margin, the outer impression small, feeble, the puncture at the angles rather coarse; elytra two-thirds longer than wide, a fourth wider than the prothorax, parallel, with broadly arcuate sides, obtuse apex and very minutely denticulate humeri; apical sinus subobsolete; striæ sharp, shallow (♀), deep (♂), the intervals nearly flat and convex alternately; scutellar stria short, fine and oblique. Length (♂ ♀) 13.5–14.6 mm.; width 4.9–5.2 mm. Utah (Provo Cañon and Miner's Peak),—Spalding.

This species is related to *placerensis* but differs in its narrower outline, straight and not distinctly sinuate middle of the thoracic base, shorter antennæ and other features.

Hypherpes utensis n. sp.—Still narrower (♀), feebly convex, piceous throughout, the elytra alutaceous, the legs blackish; head elongate, nearly three-fourths as wide as the prothorax, narrower and with rather less developed eyes than in the preceding, the impressions slightly shorter, more arcuate, the antennæ similar; prothorax much narrower, nearly as long as wide, the sides much less arcuate, distinctly but more gradually sinuate basally, the apical sinus rather deeper;

surface and impressions nearly similar, except that the basal impressions are deeper but more disconnected from the basal margin, the latter rectilinear; elytra similar in general outline but narrower, a fifth wider than the prothorax, the striæ even finer and more superficial, the intervals flat; scutellar stria a briefly attenuated puncture; apical sinuses more evident. Length (♀) 14.0 mm.; width 4.5 mm. Utah (Provo Cañon),—Spalding.

Allied only to the preceding, but differing in its much narrower form, narrower and less inflated prothorax and finer and more superficial elytral striation. *Intectus*, from Boulder, Colo., is also related to the above two species, but the prothorax is relatively smaller and the scutellar stria very different, being fine and rather long though oblique; *vivax*, from Yellowstone Park, is also related rather closely, but the form is decidedly narrower than in *provensis*, with much less inflated prothorax, and, from *utensis*, to which it is allied more closely than any other species, it differs in its less basally narrowed or less anteriorly inflated prothorax, with less sinuate sides, in its somewhat more prominent eyes and more elongate attenuate puncture forming the scutellar stria.

Hypherpes protensiformis n. sp.—Very elongate and subparallel, rather convex, black, moderately shining, the legs piceous; head elongate, nearly two-thirds as wide as the prothorax, with not very prominent eyes and coarse, not sharply defined, postero-outwardly arcuate anterior fossæ; antennæ fusco-testaceous, extending slightly behind the thoracic base, the third joint a third longer than the fourth, slightly inflated at apex; prothorax about as long as wide, the broadly arcuate sides gradually becoming distinctly sinuate basally, parallel at the angles, which are right and rather sharp; base just visibly narrower than the apical sinus, which is feeble, with projecting obtusely rounded angles; surface even, the median line subentire, impressed; basal impressions near outer fifth, linear but not abrupt, rather more than a fourth the total length, smooth; surface thence to the sides feebly convex, even and smooth; elytra four-fifths longer than wide, parallel, with feebly arcuate sides, a fourth or fifth wider than the prothorax; striæ strong and deep, impunctate, the scutellar a simple puncture; intervals only feebly convex. Length (♂ ♀) 14.5–16.4 mm.; width 4.9–5.2 mm. California (Berkeley).

Allied to *californicus*, but distinctly more elongate, less accurately parallel and with more pronounced sinuosity of the thoracic sides toward the hind angles; the latter species varies much in length, my large series indicating 11.4–15.8 mm.; it is confined to the middle coast regions of California.

Hypherpes baldwini n. sp.—Very slender, convex, deep black and alutaceous, the moderately broad anterior male tarsi very nearly black; head but little longer than wide, somewhat more than two-thirds as wide as the prothorax; eyes moderate, the apical impressions broad and feeble; antennæ long, rufo-testaceous, much longer than the head and prothorax, the third joint very gradually broader apically and almost four times as long as wide; prothorax very

nearly as long as wide, the inflated sides rather strongly arcuate, rapidly sinuate near base, straight and parallel in basal seventh, the angles sharp and right; apex distinctly sinuate, with narrowly rounded angles; base four-fifths as wide as the apex, feebly sinuate medially; transverse impressions vestigial, the median line fine and deep, biabbreviated; fine basal impression near outer fifth, long and shallow, the surface thence to the sides nearly flat; elytra nearly twice as long as wide, a fourth wider than the prothorax, elongate-suboval; striæ rather fine, with suspicion of feeble punctulation laterally; intervals almost flat; scutellar stria rather long, very fine, oblique. Length (♂) 12.2 mm.; width 4.3 mm. California (Baldwin Lake—8600 ft. elev.).

This peculiar species is somewhat allied to *pergracilis*, but the anterior cephalic lines are feebler and more diffuse, the sides of the prothorax basally more rapidly sinuate and the punctuation of the elytral striæ, especially toward the sides, less visible, the intervals flatter than in the female type of that species, in which the scutellar stria is represented only by a short feeble detached vestige. The head is relatively somewhat larger.

Euferonia Csy.

The species in this genus are rather numerous, but they require careful and discriminative study. The following seems to be undescribed:

Euferonia lacustris n. sp.—Moderately broad, strongly convex, deep black and highly polished as usual; legs black, the tarsi piceo-rufous, the anterior strongly dilated in the male; head slightly elongate, two-thirds as wide as the prothorax, with well-developed and rather prominent eyes, the anterior impressions coarse, deeply impressed and oblique; antennæ blackish, at least basally, the third joint inflated apically, two and one-half times as long as wide; prothorax large, a fifth wider than long, the sides subparallel and evenly, moderately arcuate from apex to base and well reflexed, the equal gutter feebly, irregularly punctulate; basal angles very broadly rounded; apex feebly sinuate, with less broadly rounded angles; transverse impressions broad and shallow, evident medially, the median line subentire; basal impressions deep and cavernous, rounded, sparsely punctate, somewhat uneven in outline internally; elytra three-fifths longer than wide, a fifth or sixth wider than the prothorax, parallel, with broadly arcuate sides and not very obtuse apex, the sinuses oblique but only just visibly incurvate; striæ very coarse and deeply impressed, smooth, the intervals strongly convex, less so on the flanks; scutellar stria long, coarse and free. Length (♂) 15.5 mm.; width 5.0 mm. Northern Illinois (near Chicago),—A. B. Wolcott.

Allied to *erebeus*, from Lake Superior, but, as represented by the male, larger, much broader, with more elongate head and similar broadly rounded thoracic basal angles, but broader and more punctate basal cavities and some other less evident structural differences.

Euferonia strigosula n. sp.—Unusually narrow, moderately convex, deep black and shining; legs black, the anterior and middle tarsi rufous; head elongate, two-thirds as wide as the prothorax, with well-developed and rather prominent eyes; anterior furrows coarse, deep and parallel; antennæ piceous-black, extending well behind the thoracic base, the third joint swollen in about apical half; prothorax very nearly as long as wide, the arcuate sides oblique and straight in about basal half, the basal angles obtuse and rounded; base arcuate laterally, slightly narrower than the feebly sinuate apex, with broadly rounded angles; surface smooth, the transverse impressions wide and very shallow; median stria coarse, impressed; latero-basal impression large, almost rounded, but with slightly irregular outline, very deeply concave and loosely rugulose, narrowly separated from the sides; elytra fully two-thirds longer than wide, swollen and with more arcuate sides behind the middle, not quite a fourth wider than the prothorax; striæ strong, smooth, very deeply impressed; intervals very convex, the third with three punctures near the second stria; anterior male tarsi strongly dilated, the second much stouter than the posterior though not dilated. Length (♂) 14.0 mm.; width 5.25 mm. Maryland (Hagerstown),—Wade.

This is a distinct species, which may be placed near *umbonata*, but the prothorax is larger, with more oblique and straighter sides behind the middle and without trace of the umbo within the basal impressions; it also has the diverging elytral sides from the humeri straighter. The scutellar stria is short, oblique and free. The penis is abruptly and angularly dilated at apex.

Omaseus Zieg.

This genus consists at present of a moderate number of species, so far as concerns the fauna of North America; the prothorax has the basal impressions double and not single, as they are in *Dysidius* Chd.

The five following forms are sufficiently distinct as species, so far as I can discover:

Omaseus æqualis n. sp.—Stout, convex, deep black and polished throughout; head slightly elongate, with long and only feebly arcuate mandibles, almost three-fourths as wide as the prothorax, the eyes notably prominent and well developed; anterior furrows long, broad, deep and somewhat irregular; antennæ thick, piceous-black, the third joint dilated apically and barely over twice as long as wide; prothorax fully a third wider than long, the sides rounded, a little more converging basally, becoming moderately sinuate very near the basal angles, which are slightly more than right and somewhat blunt, their setigerous puncture elongate; anterior impression feeble, the strong median line continuing thence to the base; two basal impressions at each side coalescing, forming a large, deep and densely punctate pit; elytra scarcely four-sevenths longer than wide, nearly a third wider than the prothorax, parallel, with arcuate sides and broadly but gradually rounded apex, the sinuses short and very feeble; striæ coarse and deeply impressed, less so and feebly punctured on the flanks; intervals distinctly though moderately convex; scutellar stria rather long, coarse, deep and free; three strial foveæ rather strong. Length (♀) 14.0 mm.; width 5.0 mm. New Jersey.

This species is allied rather closely to *corvinus* Dej., but is much broader than the female of that species, which differs only slightly from the male, but in *æqualis* the eyes are much larger, still more prominent and decidedly different and the elytra are much shorter. In this genus the reflexed thoracic sides are much narrower than in *Euferonia*.

Omaseus brevibasis n. sp.—Small in size, convex, deep black and polished, the legs black, ferruginous distally; head small, slightly elongate, three-fifths as wide as the prothorax and with notably prominent eyes, the anterior furrows narrow and arcuate; antennæ slender, piceous; prothorax scarcely a fifth wider than long, the rounded sides becoming feebly sinuate but only very near the right and sharp basal angles; base truncate, four-fifths as wide as the feebly sinuate apex; transverse impressions very feeble, the anterior medial only; median line rather deep, not quite entire, narrow; basal impressions distinct, the inner with strong sparse punctures; finely reflexed margins with a fine setigerous puncture at apical third and another, as usual, at the basal angles; elytra three-fifths longer than wide, a fourth or fifth wider than the prothorax, gradually arcuately rounded behind the middle; striæ coarse, deeply impressed, feebly punctate and with convex intervals, the scutellar stria rather long. Length (♀) 9.8 mm.; width 3.2 mm. New York (near the city).

Related to *caudicalis*, but smaller, with much smaller head and relatively somewhat larger prothorax, the sides at the basal angles much more briefly subparallel.

Omaseus tenuis n. sp.—Narrow and parallel, convex, deep black and polished, the legs rufous, with blackish femora; head with notably prominent eyes, nearly three-fourths as wide as the prothorax, the anterior impressions narrow, deep and arcuate; antennæ piceo-rufous, longer than the head and moderately compressed; prothorax very nearly as long as wide, the broadly arcuate sides very briefly and feebly sinuate at the sharp basal angles; base narrower than the apex, which is only just visibly sinuate; impressions obsolescent, the median line almost entire, fine, coarse basally; basal impressions long, narrow, well separated and deep, the inner with numerous moderate punctures; elytra nearly two-thirds longer than wide, parallel and almost straight at the sides, rounding in apical third or fourth, more than a fourth wider than the prothorax; striæ nearly as in the preceding but less distinctly punctate, the foveæ as usual, two on the second and one on the third stria. Length (♀) 8.5 mm.; width 2.7 mm. New Jersey.

This species may be placed near *luctuosus* Dej., but it is much narrower and more parallel.

Omaseus confluens n. sp.—Much broader in form and more parallel than in *luctuosus*, deep black and highly polished, the legs black, with rufo-piceous tarsi; head two-thirds as wide as the prothorax, with very prominent eyes, the anterior striæ rather slender, arcuate; antennæ much longer than the head and prothorax, piceous, gradually ferruginous distally; prothorax large, convex, only a seventh wider than long, the sides subevenly arcuate and nearly parallel throughout, the basal angles minute and sharp; base but little narrower than the very feebly sinuate apex, the latter with rather broadly rounded angles; transverse impressions obsolete, the stria as in the preceding; basal impressions different,

forming a rounded, strongly and closely punctured concavity, deeply incised at its anterior margin; elytra oblong-oval, three-fifths longer than wide, only about a fifth wider than the prothorax, the feebly arcuate sides gradually rounding behind about the middle; striæ throughout nearly as in *luctuosus;* anterior male tarsi very pale testaceous, distinctly dilated. Length (♂) 9.2 mm.; width 3.2 mm. Rhode Island (Boston Neck).

This distinct species differs from *luctuosus* in its much more parallel outline, larger prothorax, with the sides not distinctly sinuate even at base, also in its broadly confluent basal impressions. A female, unlabeled in the Levette collection, also belongs to this species, although the basal thoracic impressions are not quite so broadly confluent and having sparser and coarser punctures.

Omaseus testaceus n. sp.—Feebly ventricose, convex, pale testaceous, highly polished and with dense integuments; head fully two-thirds as wide as the prothorax, with very prominent eyes, the anterior strioles long, slender and arcuate; antennæ rather long, slender and but feebly compressed, the third joint barely over twice as long as wide; prothorax between a fourth and fifth wider than long, the sides subevenly arcuate, becoming gradually very shallowly sinuate toward the right and sharp basal angles; base evidently but not greatly narrower than the subtruncate apex; impressions obsolete, the median line as in the preceding species; basal impressions rather long and narrow, sharply impressed, arcuately uniting at base, the inner with very few punctures; elytra oblong-oval, scarcely three-fifths longer than wide, almost a third wider than the prothorax, the subparallel arcuate sides gradually rounding behind the middle; striæ and intervals nearly as in *luctuosus;* tarsi slender. Length (♀) 9.0 mm.; width 3.2 mm. Rhode Island (Boston Neck).

This is a peculiar species in other ways than the pale coloration, even if the latter should prove to be due in any way to immaturity in the single type. The thoracic apex is margined by a fine incised line, interrupted at the middle and wholly unobservable in any other species of this group, and the convex polished surface has at outer fifth, from the middle to apical fourth, a very feeble line of well-spaced extremely shallow punctures.

Dysidius Chd.

The few species of this genus are of small or moderate size, black and shining, and they are distinguishable from *Omaseus* by the single elongate basal thoracic impression at each side, instead of the two always seen in that genus, the latter differing from *Euferonia*, which also has two more or less coalescent impressions, by the smaller size and more evident basal thoracic angles. The following I believe to be hitherto undescribed:

Dysidius egens n. sp.—Nearly similar to *mutus* but much smaller; coloration and lustre similar; head narrower, though not when compared with the prothorax,

the eyes even less prominent; antennæ shorter and with the outer joints very much more abbreviated, the third joint shorter and apically less inflated; prothorax smaller and shorter, a sixth wider than long, the surface and impressions nearly similar, the inner slope of the deep basal impressions strongly and densely punctate; hind angles similarly obtuse, though slightly prominent; elytra similar but narrower, the three strial foveæ smaller. Length (♀) 9.5 mm.; width 3.25 mm. New Jersey.

Differs from *mutus* in its much smaller size, narrower form, shorter antennæ, especially in the distal joints, less prominent eyes, shorter prothorax, shorter thoracic basal impressions and some other characters.

Micromaseus Csy.

So far as known, the small species of this genus, with *patruelis* Dej., as the type, are few in number and are most abundant in the Atlantic regions of the continent, but the following Pacific species is notably different:

Micromaseus longicollis n. sp.—Subparallel, rather convex, black, the epipleura and legs piceous; head longer than wide, nearly three-fourths as wide as the prothorax, the eyes well developed and rather prominent; antennæ piceo-rufous, as long as the head and prothorax, notably thick, compressed, the third joint more obconic, just visibly longer than the fourth; prothorax slightly elongate, the sides broadly and moderately arcuate, becoming shallowly sinuate toward the basal angles, which are sharp and right; base broadly and feebly sinuate, a little narrower than the very feebly sinuate apex, which has rather blunt angles; surface smooth, the transverse impressions obvious but shallow medially, the stria subentire and deep; sublateral impressions at base linear, rather deep and a fourth the total length; scutellum minute, short and obtuse; elytra oblong-oval, nearly three-fifths longer than wide and between a fourth and fifth wider than the prothorax; striæ impressed, moderately deep, smooth, the scutellar wanting and represented by a basal fovea; legs moderate, the anterior male tarsi but slightly dilated. Length (♂) 6.8 mm.; width 2.25 mm. Washington State (Seattle),—C. V. Piper. One specimen.

This distinct species is distinguishable at once from *patruelis* by its larger size, more elongate prothorax, thicker antennæ and absence of the scutellar stria.

Pœcilus Bon.

The forms clustering about *lucublandus* Say, are numerous but as yet unstudied; this is a very common species, represented by a large series from eastern temperate North America and the lake regions. The legs are normally black or piceous black, but in certain examples, which cannot readily be separated otherwise, they are pale testaceous; in a few cases, however, the testaceous legs seem to form a specific character. There are three forms allied to *lucublandus*, which may be regarded as subspecific; they are the following:

Pœcilus lucublandus ssp. **manhattanis** Csy.—Agrees with *lucublandus* though larger and broader, but distinguished essentially by having five or six strong punctures on the third strial interval, instead of the usual three or four. The legs are black throughout, the tarsi not paler. Length (♂) 13.4 mm.; width 4.8 mm. Long Island. One specimen.

It is to be regretted that only one specimen has been found, for should duplicates occur, there could be no doubt of specific distinction, in view of the large size and broader outline.

Pœcilus lucublandus ssp. **louisinus** nov.—Large, still broader than *manhattanis*, with the general structure of *lucublandus*, but having very pale testaceous legs throughout; third strial interval with four punctures, the first two and last adjoining the third stria, the third near the second. Length (♂) 13.0 mm.; width 4.9 mm. Missouri (St. Louis). One specimen.

This is even broader than *manhattanis* and quite unlike the mass of representatives of *lucublandus*.

Pœcilus lucublandus ssp. **acomanus** nov.—Much smaller and narrower than either of the preceding, more parallel, the elytra less inflated, black and non-metallic throughout, rather shining, the elytra duller in the female; legs pale testaceous, the tarsi slightly darker; parts proportioned nearly as in *lucublandus*. Length (♂ ♀) 9.5–10.5 mm.; width 3.7–4.25 mm. New Mexico (Jemez Springs), —Woodgate. Two specimens.

It is highly probable that this will prove to be specifically distinct from *lucublandus*. The male is much larger than the female, and also somewhat stouter, in the pair at hand.

The two following are to all appearance specifically distinct from *lucublandus*:

Pœcilus elucens n. sp.—Rather narrowly oblong-suboval, polished, black, with more or less feeble greenish lustre; parts nearly as in *lucublandus*, except that the antennæ are more slender, similarly dark, with the first three joints pale testaceous; prothorax narrower, the sides less inflated, the apex narrower, relatively more deeply sinuate and with sharper angles; elytra similar, only a little wider than the prothorax, subsimilarly striate but with flatter intervals, the third with three to five punctures; legs piceo-rufous, with black femora. Length (♂) 9.5–11.0 mm.; width 3.6–4.2 mm. Canada (Edmonton, Alberta), —Carr. Three specimens.

Distinguishable from *lucublandus* by the smaller size, rather narrower form, narrower prothorax and some other characters.

Pœcilus planifer n. sp.—Form and general structure of the parts nearly as in *lucublandus*, but somewhat narrower; coloration and metallic lustre similar; legs piceous, polished, the elytra (♀) alutaceous; head suboval, the eyes even less prominent than in the latter; prothorax similar but with sharper apical angles; elytra also nearly similar, but relatively wider than the prothorax; striæ finer and feebly subpunctate, exarate at apex; intervals flat; discal punctures finer, about four in number. Length (♀) 9.4–10.5 mm.; width 3.6–4.25 mm. British Columbia (Agassiz). Three specimens.

This form is distinct from *lucublandus* in the finer striæ, with more perfectly flat intervals even than in the female of the latter species, also in the narrower prothorax.

Bothriopterus Chd.

The moderate number of species at present composing this genus are closely allied among themselves, but the following is an addition, which it seems worth while to propose:

Bothriopterus angusticollis n. sp.—Oblong, rather convex, deep polished black throughout, the somewhat strongly dilated anterior male tarsi piceous-black; head about as wide as long, two-thirds as wide as the prothorax, with well-developed prominent eyes, the strongly compressed antennæ moderate, piceous; prothorax scarcely a fifth wider than long, the arcuate reflexed sides somewhat oblique and nearly straight posteriad; base slightly narrower than the distinctly sinuate apex; basal angles slightly obtuse but distinct; transverse impressions evident; basal impressions acutely formed and deep, finely punctate externally; elytra three-sevenths longer than wide, but little over a fourth wider than the prothorax, slightly widest behind the middle, the sides arcuate; apex obtuse, with distinct sinuses; striæ rather fine, closely and feebly punctulate, the scutellar rather long; intervals not quite flat, the five foveiform punctures coarse and deep. Length (♂) 10.0 mm.; width 3.8 mm. Utah (Provo Cañon),—Spalding.

May be compared with *latescans* Csy., but differs in the rather smaller head and eyes and somewhat narrower prothorax, less punctured latero-basal part of the pronotum, shorter scutellar stria and generally smaller size of the body.

Cyclotrachelus Chd.

The species of this genus appear to be rather numerous, but they are individually rare as a rule, so that I am unable to affirm that all of those now included under the name are truly *Cyclotrachelus*. The following is an additional species:

Cyclotrachelus fallaciosus n. sp.—Barely at all ventricose, convex and deep black throughout, moderately shining; head four-sevenths as wide as the prothorax, with rather prominent eyes and narrow, parallel and slightly arcuate anterior furrows; antennæ rather slender, extending well behind the prothorax, black, gradually becoming ferruginous distally, the third joint subevenly obconical and fully a fifth longer than the fourth; prothorax almost as long as wide, subcircular, the sides feebly sinuate near the obtuse basal angles; base barely over two-thirds as wide as the feebly sinuate apex, which has broadly rounded angles; transverse impressions obsolete, the stria deeply impressed, biabbreviated; surface smooth, the outer subbasal impressions very deep, moderate in size, oval, smooth and much nearer the sides than the middle; margins finely reflexed; elytra oval, more attenuated posteriorly than basally, three-fifths longer than wide, a fourth or fifth wider than the prothorax; striæ strong, broadly impressed and coarsely, loosely, seriately punctate, becoming gradually much finer, feeble and impunctate posteriad; intervals moderately convex, flatter behind; discal

puncture at the second stria near three-fifths minute and feeble. Length (♂) 11.5 mm.; width 4.2 mm. Southern Florida (Dunedin),—Batchley.

This species differs from *roticollis* Csy., from the same regions, in its more parallel form, the elytra being less inflated and with much more coarsely and distantly punctured striæ, obsolescent behind. The anterior male tarsi alone are dark rufo-piceous in color.

Monoferonia Csy.

The following species is smaller and much narrower than *osculans* Csy., the type of the genus. In some respects *Monoferonia* resembles *Gastrosticta*, but it differs very much in the sculpture of the abdomen, as well as in other ways.

Monoferonia idahoanus n. sp.—Narrowly ventricose, strongly convex, deep black and shining, the legs black, the dilated anterior male tarsi alone rufo-piceous; head elongate, the eyes moderately prominent, the anterior furrows moderate, parallel; antennæ extending scarcely beyond the thoracic base, the moderate third joint slightly inflated at apex; prothorax as long as wide, the sides broadly arcuate, gradually feebly converging behind to the rounded obtuse angles, which are margined internally by a narrow curving groove; base unmargined, three-fourths as wide as the apex, which is feebly sinuate, with obtusely rounded projecting angles; side margins very finely reflexed throughout; transverse impressions narrow and evident, the stria fine and biabbreviated; subbasal impressions smooth, narrow, longitudinal, a seventh the total length and at nearly their own length from the base, nearer the outer side than the middle; elytra very evenly oval, widest at the middle, four-sevenths longer than wide and scarcely a fifth wider than the prothorax; striæ smooth, rather distinct, impressed and equal throughout the length, the scutellar very short, oblique; intervals moderately convex; discal puncture apparently wanting; abdomen piceo-rufous, smooth and only with the double median line of punctures. Length (♂) 9.4 mm.; width 3.2 mm. Idaho (Moscow Mt.). One example.

Differs from *osculans* in its smaller size and narrower form, also in its more slender antennæ, very much smaller subbasal thoracic impressions and in the more abbreviated and less deeply striate elytra; the antennæ are dark ferruginous, gradually becoming darker piceous basally.

I have recently received a large series of *osculans*, taken by Prof. C. V. Piper at Priest Lake, Idaho.

Evarthrinus Csy.

The following species is related to *sodalis* Lec., which is the same as the *fatuus* of that author, the former name applying to the male, the latter to the female:

Evarthrinus inflatipennis n. sp.—Convex, rather ventricose, castaneous, the under surface and legs rufous, convex, rather shining (♀), the elytra alutaceous

but not opaque; head three-fifths as wide as the prothorax, rather elongate, with well-developed moderately prominent eyes and very deep anterior furrows; antennæ moderate, testaceous; prothorax relatively small, between a third and fourth wider than long, the sides strongly arcuate, gradually strongly converging posteriad to the rather abrupt sinus and parallel for about a ninth or tenth the length before the angles, which are slightly obtuse and blunt; base fully three-fourths as wide as the deeply and broadly sinuate apex; impressions obsolete; stria deep at basal third, slightly biabbreviated; latero-basal impressions narrow, rather short and approximate, nearly smooth; elytra almost three-fifths longer than wide, nearly three-sevenths wider than the prothorax, parallel, with arcuate sides and gradually rounded apex; striæ moderate, impressed and with moderate and well-separated punctures, the scutellar very short, coarse and oblique; intervals not quite flat; single puncture of the second stria rather small, just behind the middle. Length (♀) 13.0 mm.; width 5.2 mm. Northern Illinois (near Chicago),—A. B. Wolcott.

Differs from the female of either *sodalis* or *impolitus* in its relatively very much smaller prothorax; the unusually small latero-basal impressions resemble those of *impolitus*, but are smoother and still shorter, but they are very different from the deeply cavernous united impressions of *sodalis*.

Loxandrus Lec.

It is reasonably certain that my representative of *Feronia recta* Say, is a true identification of that species, for it agrees with the original description in its broad prothorax, with rapidly rounded basal angles and other characters, though differing somewhat in its smaller size, being only about 12 mm. long. *Rectus* is a large species, when compared with the *Feronia* (*Argutor*) *velox* of Dejean —3 l., or 6 mm. in length, according to Dejean, and the two species cannot therefore be closely allied, although the latter is made a synonym of *rectus* by Mr. Leng. It would seem to me that *velox* Dej., must be very close to *agilis*, if not a synonym of that species.

There is reason to believe that *lucidulus* Dej., is the same species as that which I identified as *lucens* Chd.; *lucidulus* should therefore be recorded as a valid species, with *lucens* as a synonym, according to present lights. *Mandibularis* is an entirely different species from *rectus*, though of nearly similar size; it has a relatively much narrower prothorax, with less arcuate sides and differs very much also in the coloration of the mandibles. The species which I have identified as *laticollis* Chd., is shorter and relatively broader than *rectus* and it is valid. The species described by Blatchley under the name *brunneus* is seen, by a cotype given me by the author, to be exactly the same as *mundus* Csy. It should be said also that *scitus* Csy., is taken in some numbers by Löding at Mobile, agreeing

throughout with the Florida types; the antennæ are obviously thicker than in *contumax*.

Loxandrus is one of those genera in which it is almost impossible to identify, in any certain way, many species by the published descriptions, and it is most regrettable that the types of Chaudoir cannot be compared directly with our own.

The two following are distinctly characterized species, hitherto undescribed:

Loxandrus cincinnati n. sp.—Suboval and elongate, polished, black, the legs obscure testaceous, the femora black; head smooth, slightly elongate, rather more than half as wide as the prothorax, the antennæ slender, testaceous, evidently more than half as long as the body (♂); prothorax barely a fifth wider than long, the parallel sides very evenly arcuate throughout, the basal angles evidently more than right but sharp and not at all rounded; surface with the longitudinal impressions short, not attaining the base, with very few attendant small punctures, almost extending transversely throughout between them, the reflexed lateral margins fine and translucently testaceous; elytra two-thirds (♂), or three-fifths (♀), longer than wide, with parallel, broadly arcuate sides and very faint subapical sinus, at the middle distinctly wider than the prothorax; striæ strong and deeply impressed, with fine and close-set punctures, subexarate apically; anterior femora much swollen in the male. Length 10.0–10.5 mm.; width 3.7 mm. Ohio (Cincinnati).

A male and female of this species were very kindly communicated by Mr. Dury. It belongs near *inquietus* Csy., but is larger in size and broader in outline, with more evenly arcuate sides of the prothorax and longer antennæ.

Loxandrus breviusculus n. sp.—Body more abbreviated than usual, convex, polished, black, the elytra with the feeblest possible iridescence, the femora black; tibiæ nearly black, the tarsi testaceous; head longer than wide, well developed, fully four-sevenths as wide as the prothorax; apical impressions small but evident; antennæ slightly longer than the head and prothorax, moderately slender, dusky, the first three joints more testaceous; prothorax nearly a third wider than long; apex slightly narrower than the base, which is evenly and moderately arcuate, the basal angles distinctly rounded; side margins finely reflexed, not paler; basal lineate impressions extending almost to the base, with very few minute intermediate punctures; elytra slightly less than one-half longer than wide, more than a fourth wider than the prothorax, with broadly arcuate sides and feeble subapical sinus; striæ moderate, rather impressed, not coarsely but strongly, closely punctate, the seventh fine and subobsolete broadly toward base; intervals perfectly flat apically. Length 8.2 mm.; width 3.3 mm. Florida (Dunedin),—Blatchley.

The single female, when compared with the unique female type of *comptus*, is shorter and broader in form, the prothorax of the latter being only a fifth or sixth wider than long, with the basal impressions far from the basal margin, the seventh stria somewhat as in *breviusculus* and the antennæ distinctly longer. Species of this genus seem to be numerous in southern Florida.

Anchomenus Bon.

But few additions to this large genus have become known recently, as follows:

Anchomenus missourianus n. sp.—Body notably broad, with unusually flat surface of the elytra, polished and deep black throughout; head elongate-rhombic, fully two-thirds as wide as the prothorax, with only moderately prominent eyes, the apical impressions very oblique, irregular and shallow; antennæ black, three-fourths as long as the elytra, rather slender, the third joint slightly longer than fourth; prothorax only a fifth or sixth wider than long; sides parallel and broadly arcuate, widely reflexed, becoming shallowly sinuate toward the rather sharp and feebly prominent angles; base wider than the distinctly sinuate apex; transverse impressions distinct medially; basal impressions large, rather deeply concave and loosely but distinctly punctate; elytra not quite one-half longer than wide, parallel, with arcuate sides, obtusely rounded apex and distinct sinuses, four-sevenths wider than the prothorax, with rather coarse, subpunctate and deeply impressed striæ and notably convex intervals, the three coarse punctures evident; scutellar stria moderately long, deep and free. Length (♀) 11.7 mm.; width 4.6 mm. Missouri (Westminster).

Related to *sinuatus* Dej., but larger, notably broader, with larger and more elongate head, larger prothorax and broader, flatter elytra, the strial semipunctuation finer and less obvious than in *sinuatus*.

Anchomenus albertanus n. sp.—Polished black, with feebly piceous tinge, the under surface and legs piceo-rufous; form and proportions somewhat as in *sinuatus*; head elongate-rhombic, nearly three-fourths as wide as the prothorax, the eyes well developed and rather prominent; apical impressions broadly and deeply impressed, straight and parallel; antennæ slender, piceous-black, the third joint between a third and fourth longer than the fourth; prothorax a fourth wider than long, the sides not so evenly arcuate as in the preceding, more inflated beyond the middle, the sides more broadly oblique and feebly sinuate basally than in *sinuatus*; surface and punctuation of the impressions nearly as in the latter, but with the transverse impressions much deeper; elytra not quite one-half longer than wide, four-sevenths wider than the prothorax, parallel, with feebly arcuate sides, rather broadly rounded apex and distinct sinuses; striæ moderate, rather abrupt, with small separated punctures along the bottom, the scutellar moderate, free; intervals only very feebly convex; three punctures coarse, deep and conspicuous. Length (♀) 10.0 mm.; width 4.0 mm. Alberta (Edmonton), —F. S. Carr.

Differs from *sinuatus* in its larger head, more distinct ultramedian inflation of the prothorax and less coarse, much less impressed and more finely punctate elytral striæ.

Anchomenus uteanus n. sp.—Very moderately ventricose and frail in structure, black, moderately shining, the elytra sometimes feebly æneous; under surface and legs blackish-piceous, the latter often testaceous; head but slightly elongate, with well-developed and rather prominent eyes; antennæ slender, the third joint evidently shorter than the fourth and more slender; prothorax as long as wide to somewhat wider, the sides moderately arcuate, slightly oblique and nearly

straight basally, the basal angles very obtuse between the sides and rounded sides of the base though finely sharp at apex; base subequal to the evidently sinuate apex; transverse impressions feeble, the median line fine, not quite entire; basal impressions at outer fifth, narrow but broadly and deeply impressed, the inclined sides thence outwardly feebly punctulate; elytra one-half (♀) to three-fifths (♂) longer than wide, with feebly arcuate sides and gradually obtuse apex, nearly four-fifths wider than the prothorax; striæ fine, smooth, the scutellar rather long, free; intervals almost flat, the third with five or six punctures at the third or second stria; anterior male tarsi very feebly dilated. Length (♂ ♀) 7.5–8.0 mm.; width 2.7–3.3 mm. Utah (Callao),—Spalding. Six specimens.

This species is one of the *extensicollis* section, but is much smaller than the latter and with shorter and blackish antennæ, having only the first joint pale, also with much finer elytral striæ.

Anchomenus amplicollis n. sp.—Shining, black, the legs black, with rufescent trochanters, the epipleura rather pale; elytral surface depressed, with æneo-subcupreous lustre; head slightly elongate, scarcely two-thirds as wide as the prothorax, with well-developed, moderately prominent eyes, the anterior impressions greenish, broad and irregular; antennæ very slender, blackish, nearly half as long as the body, the third joint not quite as long as the fourth; prothorax large, about a fifth wider than long, slightly widest a little beyond the middle; sides parallel, broadly arcuate, becoming barely perceptibly sinuate gradually toward the rather sharp and feebly prominent angles, which are more than right; base slightly oblique at each side, rather wider than the apex, which is distinctly sinuate, with slightly blunt angular apices; surface like the head, very feebly subæneo-metallic, the transverse impressions vestigial; median stria fine, impressed, apically abbreviated; latero-basal impressions large, rather deep and smooth; elytra three-sevenths longer than wide, three-sevenths wider than the prothorax, parallel, with slightly arcuate sides, rounded at apex; surface nearly flat, rapidly declivous and somewhat greenish at the sides; striæ fine, smooth; intervals flat, the third with six punctures; scutellar stria rather long, free; anterior male tarsi very moderately dilated, not paler. Length (♂) 10.0 mm., width 3.8 mm. California (Berkeley).

This is a notably distinct species, differing from *texanus*, near which it should be placed, in its larger size, broader and flatter form, more prominent basal thoracic angles, broader head and larger prothorax; it is altogether different from *californicus* in its much larger size, broader form throughout, flatter elytra and more prominent basal thoracic angles.

Platynus sulcipennis of Horn, of which I now have a number of specimens taken by Mr. Löding, is a perfectly normal species of *Anchus*, and *albicrus* Dej., also given me by Mr. Löding, is a typical member of the genus *Tetraleucus*, although the contrast in color between the last four whitish antennal joints and the seventh, is not quite so abrupt and conspicuous as in *picticornis*. The extremely slender legs are blackish, with peculiarly whitish tibiæ, the latter gradually blackish apically.

Agonum Bon.

The species identified as *Agonum seminitidum* of Kirby, which I have in abundance from Lake Superior and one from Winnipeg, is not the same as *seminitidum*, from Lat. 54°, for, instead of being greenish-bronzed, with the elytra black-bronze, it is bright cupreous throughout above and I would therefore change its name to *cupreolucens* (nom. nov.).

Agonum uintanum n. sp.—Rather narrowly parallel, convex, shining, the upper surface bright cupreous, the lower greenish-black, the legs deep black throughout; head barely longer than wide, fully two-thirds as wide as the prothorax, the eyes well developed but not obviously prominent; antennæ not very long or slender, deep black throughout, the third joint longer than fourth; prothorax rather short, between a third and fourth wider than long, widest near apical two-fifths, but with the sides subevenly rounded, less arcuate basally, the basal angles very obtuse and rounded; transverse impressions distinct, the stria between the two deep and broadly impressed; impressions near the base at outer fourth linear, broadly impressed and deep, with some transverse rugulosity; base fully as wide as the apex, which is very shallowly sinuate; moderately reflexed margins continued around the basal angles to outer fourth, becoming rather stronger and bearing a shallow elongate puncture; elytra not quite one-half longer than wide, only a third wider than the prothorax, obtusely rounded at apex, with almost obsolete sinuses, the parallel sides very moderately arcuate; striæ fine, abrupt and smooth, the scutellar very short and fine; intervals nearly flat, the third with five punctures. Length (♂) 7.2 mm.; width 2.8 mm. Utah (Parowan Mts., Mammoth—10000 ft. elev.).

This species is brilliantly cupreous as in *cupreolucens*, but is much smaller and more abbreviated, with somewhat larger head and shorter and more transverse prothorax. The anterior male tarsi are black and rather well dilated, much shorter than in the male of *cupreolucens*, the second joint being not quite as long as wide; in the latter species it is much longer than wide.

I have recently received a specimen of *longulum*, more elongate and less purely cupreous than *cupreolucens* and found at Douglas, Utah; this specimen, which matches the type of *longulum* very well, was taken by Spalding in Provo Cañon, Utah.

Agonum amens n. sp.—Oblong, convex, shining, deep black, the legs piceous; size small; head elongate, two-thirds as wide as the prothorax, with well-developed and rather prominent eyes; antennæ black, extending well upon the elytra, more slender basally, the third and fourth joints equal; prothorax a third (♂) to two-fifths (♀) wider than long, the sides parallel, evenly rounded, narrowly reflexed, the gutter lost in the basal flattening, which is feebly sculptured, rather less shining and with a feeble basal impression near outer fifth; basal angles broadly rounded; apex slightly narrower than the base, deeply sinuate and with distinct and feebly blunt angles; anterior transverse impression fine and feeble but evident, the median stria rather fine, deep and subentire; elytra broad, oblong, with slightly arcuate picescent sides and rapidly rounded apex, two-fifths longer than wide, less than one-half wider than the prothorax; striæ fine and

shallow, simple, the scutellar moderate; intervals nearly flat, the third with three discal punctures; anterior male tarsi very narrowly dilated. Length (♂ ♀) 6.4–6.6 mm.; width 2.4–2.65 mm. Canada (Edmonton, Alberta),—Carr. Three specimens.

A distinct species, which may be placed near *insuetum*, but shorter and stouter and with shorter tarsi; the hind tarsi of *insuetum* are more slender, with the joints much more elongate.

Agonum invalidum n. sp.—Small and notably narrow, black and shining throughout, the legs black; upper surface with the feeblest subæneous glimmer; head but slightly elongate, with large and somewhat prominent eyes, fully three-fourths as wide as the prothorax; apical impressions deep and punctiform; antennæ black, slender, half as long as the body, the third joint just visibly longer than the fourth; prothorax small, barely perceptibly shorter than wide, the sides parallel, evenly arcuate; base arcuate, with obtuse but not very widely rounded angles, evidently wider than the apex, which is shallowly sinuate, with not much produced and narrowly blunt angles; surface smooth, with some transverse ruguliform lines, subobsolete transverse impressions and shallow elongate basal impressions near outer fifth, the surface thence broadly, shallowly reflexed to the sides and less shining but not punctate; elytra long, parallel, with slightly arcuate sides and rapidly circularly rounded apex, three-fourths longer than wide and four-sevenths wider than the prothorax; striæ very fine, not impressed; intervals flat, the third with five small punctures near the third and second striæ; scutellar stria fine, not free, proceeding from a basal puncture; anterior male tarsi very narrowly dilated, black. Length (♂) 6.0 mm.; width 2.0 mm. Canada (Edmonton, Alberta),—Carr. One specimen.

This species, though notably small and frail, may be placed in the *placidum* section, near *rhodeanum*, but it is smaller and very much more slender.

Agonum rhodeanum n. sp.—Form somewhat as in *placidum* Say, but much smaller, more pallid and with even thinner integument, shining, castaneous, the head black; under surface blackish-piceous, the legs dark testaceous; head barely longer than wide, nearly three-fourths as wide as the prothorax, with large and rather prominent eyes; antennæ slender, blackish, with testaceous first joint, the third barely visibly longer than the fourth; prothorax a fourth wider than long, the sides parallel and subevenly arcuate; basal angles very obtuse, narrowly rounded at tip; base arcuate, somewhat wider than the feebly sinuate apex; sides moderately reflexed, gradually broadly concavo-explanate basally and finely punctato-rugulose; transverse impressions obsolete, the stria fine, entire; elytra scarcely one-half longer than wide, parallel, with arcuate sides and broadly rounded apex, three-fourths wider than the prothorax; striæ very fine, the scutellar moderate, free; intervals flat, minutely, sparsely and obsoletely punctulate, the five small punctures of the third in great part near the third stria. Length (♂) 6.8 mm.; width 2.7 mm. Rhode Island.

This form was previously mentioned by me as constituting one of the extremes of *placidum* in point of size, but subsequent study convinces me that it really represents a distinct species, the smallest of a large series of the true *placidum* being 7.2 by 2.8 mm. in di-

mensions. The still more narrowly dilated anterior male tarsi are decidedly longer than in *placidum*.

Agonum terracense n. sp.—Oblong, moderately convex, rather abbreviated, polished and deep black, the elytra feebly greenish-metallic; under surface and legs throughout deep black; head two-thirds as wide as the prothorax, short, with large and somewhat prominent eyes and widely separated parallel apical grooves; antennæ wholly deep black, slender, the third joint equal in length to the fourth; prothorax transverse, three-sevenths wider than long, the parallel sides evenly and distinctly arcuate; basal angles broadly obtuse, the apices distinctly rounded, with a small puncture in the thickened reflexed edge; base much wider than the deeply sinuate apex, which has very distinct angles; broadly arcuate transverse impressions fine and feeble, the stria fine, biabbreviated; surface latero-basally concavo-explanate, nearly smooth; impression at outer fourth narrow and linear; elytra oblong, with feebly arcuate sides, broadly rounded apex and very feeble sinuses, two-thirds wider than the prothorax; striæ moderate, deep, stronger suturally, where the intervals are broadly convex, flat externally, the third with three punctures, at the third stria, central and at the second, in succession; scutellar stria free; anterior male tarsi deep black, very moderately dilated, rather short. Length (♂) 7.5 mm.; width 3.0 mm. British Columbia (Terrace),—Mrs. W. W. Hippisley.

This notably distinct species may be placed near *æthiops*, but is shorter and relatively broader, with larger and more prominent eyes, less elongate antennæ and with many other differences, including coloration, *æthiops* being deep shining black throughout.

From Edmonton, Alberta, I have three specimens that are evidently *hyslopi*, although the latter was described from Washington State.

Europhilus Chd.

In my previous work on this genus two subspecific forms are attached to *lutulentus* Lec., but it is found on further study that *elegantulus* Csy., is purely a synonym of that species, while *adustus* must be elevated to specific rank, as it is a much narrower form, the prothorax especially being notably narrower and often subelongate; *atriceps* has a much shorter hind body, with relatively stronger striation. The three following species are recent discoveries to be added:

Europhilus carri n. sp.—Elongate, rather convex, feebly ventricose, black, with piceous elytra; under surface black, the legs piceous to testaceous; head longer than wide, three-fifths as wide as the prothorax, the eyes well developed but scarcely at all prominent; apical furrows coarse, deep and parallel; antennæ bicolored, slender, the third joint longer than fourth, joints one to four black, thence testaceous; prothorax about as long as wide, widest slightly beyond the middle, but with broadly and subevenly rounded sides and broadly rounded basal angles; sides narrowly reflexed, a little more so basally; base a little wider than the very feebly sinuate apex, having rather broadly rounded angles; transverse impressions vestigial; latero-basal impressions wide, deep, moderately

elongate, almost smooth; elytra less than one-half longer than wide, oblong-oval, three-fifths wider than the prothorax, with rather fine smooth striæ and flat intervals, feebly convex at the suture; anterior male tarsi narrowly dilated. Length (♂ ♀) 6.3–6.4 mm.; width 2.35–2.4 mm. Canada (Edmonton),—F. S. Carr.

The legs in the female type are virtually black, with piceo-testaceous coxæ and trochanters, but in the male they are pale testaceous throughout; there are no other differences at all obvious. This species is very much smaller, shorter and relatively broader than *piceipennis* Kirby, also broader and heavier than *serenus* and with broader head.

Europhilus sordens Kirby—Smaller and narrower, moderately convex, shining, black, with feeble greenish lustre, the elytra obscure testaceous; under surface black, the epipleura and legs throughout pale brownish-yellow; head rhombic, three-fourths as wide as the prothorax, with well-developed and moderately prominent eyes; antennæ black, extremely slender; basal joint, and also the hypomera, piceo-testaceous; prothorax rather small, very little wider than long, widest slightly beyond the middle, the sides subevenly arcuate, a little more converging basally, the basal angles very obtuse, with narrowly rounded apices; base distinctly narrower than the shallowly sinuate apex, having rather distinct though blunt angles; transverse impressions subobsolete, the median line unusually coarse and deeply impressed, the latero-basal impressions large, concave and moderately elongate; elytra not quite one-half longer than wide, oblong-oval, with gradually broadly rounded apex, four-fifths wider than the prothorax; striæ fine, the intervals nearly flat, the about five punctures of the third fine. Length (♀) 5.4 mm.; width 2.0 mm. Massachusetts (Framingham),—C. A. Frost.

This species is not closely allied to any other, one of the smallest known to me thus far, although the next is also about as small. The antennæ are notably slender, even for the present genus. As the locality is somewhat remote from that of the original type—lat. 54° in western Canada—I cannot be completely sure of the identification, but my representative satisfies all the characters of Kirby's description, though perhaps a little smaller, the length given by the latter author being 3 lines, or 6 mm.

Europhilus frosti n. sp.—Small, moderately ventricose and evidently convex, shining, black, the elytra piceous; under surface black, the epipleura yellow, the legs slightly darker rufous, with blackish tarsi; head narrow, elongate, two-thirds as wide as the prothorax, with broad shallow oblique apical impressions, each inclosing a puncture near the apical margin; eyes moderate, scarcely at all prominent; antennæ slender, black, the first joint barely at all paler; prothorax a fifth wider than long, the parallel sides evenly and moderately arcuate, more reflexed at the obtuse rounded basal angles; base oblique laterally, about as wide as the moderately sinuate apex, the latter having narrowly rounded angles; surface as in *sordens;* elytra scarcely one-half longer than wide, with broadly arcuate sides, obtuse apex and very shallow sinuses, three-fourths wider than the prothorax; striæ fine, feebly impressed, gradually more deeply toward the suture, the scutellar moderate, free; anterior male tarsi blackish, very feebly

dilated. Length (♂) 5.3 mm.; width 2.18 mm. Maine (Eastbrook),—J. H. Emerton.

Resembles *sordens* somewhat in its small size, but differs in its narrower head, with still less prominent eyes, slightly broader prothorax, with less basally oblique sides, broader and less convex elytra, with more deeply impressed striæ, and in the slightly less slender antennæ, with nearly black basal joint. The third strial interval bears the usual four or five punctures of the genus. This species is named in honor of Mr. C. A. Frost.

At Eastbrook, Mr. Emerton also took a considerable series of the Adirondack species, which I identified as *retractus* Lec. *Facilis* Csy., has also been taken by Mr. Frost at Sherborn, Mass.

Pristodactyla Dej.

The following is one of the semiopaque species allied to *arizonica*, *binaria* and *scolopax:*

Pristodactyla juabitica n. sp.—Moderately ventricose, rather depressed, piceo-rufous, the under surface and legs dark rufous, feebly shining, the elytra opaque; head slightly longer than wide, two-thirds as wide as the prothorax, the anterior impressions large, wide and irregular; eyes well developed but not very prominent; antennæ rather long, obscure rufous, the third joint fully a third longer than the fourth; prothorax a fifth wider than long, widest well beyond the middle, the broadly arcuate sides slightly oblique behind, distinctly and evenly reflexed throughout, the angles broadly rounded; base distinctly narrower than the apex, which is only just visibly sinuate and with widely rounded angles; surface smooth, with a few rugulæ basally; median line fine; latero-basal impression shallow, elongate; elytra three-fifths longer than wide, gradually rounded at apex, with parallel sides, more rounding basally, three-sevenths wider than the prothorax; striæ fine; intervals virtually flat, the third with two punctures near the second stria; scutellar stria long, somewhat disintegrated, free. Length (♀) 10.5 mm.; width 3.8 mm. Utah (Trout Creek, Juab Co.),—Spalding.

This species differs from the male type of *arizonica* in its more abbreviated outline and especially much shorter prothorax, which has a fine and sharply marked anterior transverse impression, wholly traceless in *arizonica*, and two more widely separated, and not three, punctures of the third strial interspace. The antennal joints are much less elongate and, in the latter species, the third and fourth joints are equal.

Cymindis Latr.

This is a large genus in the temperate regions of North America. In my previous revision of the species I have certainly misidentified *unicolor* Kirby, the prothorax having no "longitudinal channel" and the "lateral margin of the thorax not dilated," the length is

7 mm.; it is said to be thickly punctured and ferruginous, these remarks covering the entire description. LeConte thought that it might be the same as *neglecta* Hald., but this has a distinct median thoracic line and the surface is not at all closely punctured.

This species which I formerly described under the name *marginata* Kirby (Mem. Col., IV., p. 183) is quite certainly not correctly identified; it is found in a different geographic region, is smaller in size and there is no transverse rugulosity between the eyes; I therefore describe this specimen as the representative of a new species as follows:

Cymindis kirbyi n. sp.—Moderately depressed, shining, pale piceous, the broadly reflexed thoracic margins and most of the elytra, median parts of the under surface of the hind body and the legs pale testaceous; head rather more than three-fourths as wide as the prothorax, very coarsely, closely punctured, more finely and remotely medio-anteriad; eyes moderately prominent; antennæ very long, two-thirds as long as the body, testaceous, the third joint longer than the fourth; prothorax a third wider than long, widest near apical third, but with evenly arcuate sides, very briefly sinuate near the rather blunt but prominent hind angles; base wider than the distinctly sinuate apex, the latter having broadly rounded angles; surface coarsely and closely punctate, with fine and imperfect median line; elytra a third longer than wide, two-thirds wider than the prothorax, distinctly widest behind the middle; striæ strong but shallow, closely, rather coarsely punctate; intervals feebly convex, moderately, somewhat loosely and confusedly punctate; pubescence very short, sparse and erect; anterior male tarsi feebly dilated and convex. Length (♂) 8.35 mm.; width 3.2 mm. British Columbia (Caribou District).

A peculiar species of the *cribricollis* section but much smaller, paler and with relatively longer antennæ. *Reflexa* Lec., is allied closely to *cribricollis*, but the sides of the prothorax toward base are more strongly sinuate and for a decidedly greater distance.

Cymindis parowana n. sp.—Rather small and slender, shining, blackish-piceous, the legs very obscure rufous; head slightly elongate, fully five-sixths as wide as the prothorax, with moderate but very prominent eyes and strong close punctures, nearly wanting medio-apically; antennæ not quite half as long as the body, piceo-rufous, the third joint evidently longer than the fourth; prothorax slightly wider than long, convex, widest between apical third and fourth, the moderately reflexed sides anteriorly prominently rounded, thence oblique to the evident basal sinuation, becoming straight and parallel to the angles, which are a little more than right, very sharp and strongly reflexed; base oblique at the sides, scarcely over three-fourths as wide as the apex, which is scarcely perceptibly sinuate and with obtuse angles; surface coarsely and closely punctate, with fine and imperfect median line; elytra somewhat less than one-half longer than wide, slightly widest behind the middle, not quite twice as wide as the prothorax; striæ rather coarse, not deep, punctate; intervals flat, with coarse separated punctures, somewhat less coarse externally; scutellar stria very short; anterior male tarsi very feebly thickened. Length (♂ ♀) 8.0 mm.; width 2.8 mm. Utah (Parowan Mts., 10000 ft. elev.).

May be placed near *uniseriata*, but with closer and finer interstitial punctures, not at all serial in arrangement.

Cymindis planifera n. sp.—Broader, more feebly ventricose, shining, the elytra somewhat less so, blackish-piceous, the elytra feebly rufescent at base, more broadly at the humeri; under surface black, the legs rufous; head three-fourths as wide as the prothorax, with well-developed and prominent eyes, the surface strongly, loosely punctate; antennæ slender, piceo-rufous, the third joint longer than the fourth; prothorax nearly two-fifths wider than long, inflated and with evenly rounded sides anteriorly, the sides broadly and strongly reflexed throughout, only minutely sinuate at the basal angles, which are more than right; base as wide as the apex, which is distinctly sinuate, with broadly rounded angles; surface strongly, loosely punctate throughout, with fine imperfect median line; elytra not quite one-half longer than wide, slightly widest behind, three-sevenths wider than the prothorax, with moderate and shallow, closely punctate striæ; intervals flat, equal, with rather strong and well-separated punctures, generally confused but sometimes forming two lines; scutellar stria rather short, fine as usual; anterior male tarsi feebly thickened. Length (♂) 8.8 mm.; width 3.18 mm. A single specimen, unlabeled in the Levette collection but probably from Colorado.

This species was formerly held to be the *unicolor* of Kirby, but it is quite evidently different, as may be judged by remarks quoted above.

Cymindis govanica n. sp.—Only feebly ventricose and convex, strongly shining, piceous-black, the elytra nubilously rufous toward the humeri; under surface and legs rufous; head fully three-fourths as wide as the prothorax, rather strongly but very loosely punctate, with moderate and but slightly prominent eyes; antennæ slender, rufo-piceous, the third joint barely longer than the fourth; prothorax piceo-rufous, the broadly and strongly reflexed sides paler rufous, shorter, about one-half wider than long, the sides parallel and arcuate in about apical half, thence converging posteriad, becoming gradually and moderately sinuate toward the angles, which are somewhat blunt and but slightly prominent; base wide though evidently narrower than the apex, which is broadly and distinctly sinuate, with rounded angles; surface moderately convex, with coarse and widely separated punctures, even throughout, the median line strongly impressed, abbreviated; elytra short, a third longer than wide, less than one-half wider than the prothorax, barely discernibly widest posteriad; striæ strong but shallow, closely, moderately punctate, the intervals virtually flat, with widely separated and rather strong punctures, generally confused but sometimes in single uneven series. Length (♀) 9.2 mm.; width 3.3 mm. Washington State (Govan).

Belongs to the *cribricollis* section, but with shorter prothorax, having the sides much less sinuate basally and with stronger and sparser elytral punctures, among other noticeable differences.

Cymindis obliqua n. sp.—Shining, moderately convex, black, the elytra very faintly rufescent toward the humeri, the wide reflexed thoracic and narrower elytral margins testaceous; under surface blackish, the hind body broadly rufous medially, the legs rufous; head fully three-fourths as wide as the prothorax, with well-developed and prominent eyes, coarsely, rather loosely punctate, subpunctureless antero-medially; antennæ slender, rufescent, the third joint but very little longer than the fourth; prothorax less transverse, a third wider than

long, widest near apical third, the sides subevenly arcuate, converging posteriad, just visibly sinuate near the angles, which are obtuse and evidently rounded, though somewhat prominent; base broad, arcuate, nearly as wide as the distinctly sinuate apex, the latter having broadly rounded angles; punctures strong, moderately separated, sparse antero-medially, the median line extremely fine, imperfect; elytra longer, fully one-half longer than wide, gradually and evenly wider, with nearly straight sides, widest behind the middle, nearly one-half wider than the prothorax, the humeri rapidly circularly rounded; striæ strong but superficial, closely punctate, more coarsely basally than apically, the scutellar rather short; intervals flat, with somewhat fine, evenly confused and very moderately separated punctures. Length (♀) 9.3 mm.; width 3.35 mm. Canada (Edmonton, Alberta),—Carr.

May be placed near the last, though differing in its more elongate form and finer elytral punctuation, as well as several other features.

Cymindis sinuata n. sp.—Piceous, the elytra obscure rufous; widely reflexed sides of the prothorax, most of the under surface and the legs pale testaceous; surface shining, the elytra subalutaceous; head more than three-fourths as wide as the prothorax, convex, strongly and closely punctate, sparsely so medially and with prominent eyes; antennæ testaceous, the third joint nearly a third longer than the fourth; prothorax a third wider than long, widest near apical third, the sides evenly rounded, becoming broadly sinuate for a long distance before the angles, which are rather obtuse though prominent; base arcuate at the sides, as wide as the sinuate apex, the latter having broadly rounded angles; surface rapidly convex toward the middle, subevenly and strongly, rather loosely punctate, with feeble median line; elytra two-fifths longer than wide, two-fifths wider than the prothorax, slightly widest just behind the middle; striæ coarse and deep, densely but indistinctly punctate; intervals not quite flat, strongly but loosely punctate and with very short sparse pubescence, the third with three distinct punctures. Length (♀) 9.0 mm.; width 3.4 mm. New Mexico.

Resembles *reflexa* in the comparatively long basal sinuation of the thoracic sides, but differing in the less transverse prothorax and coarse and much deeper elytral striæ, the punctures of which are not distinct and isolated, as they are in the very shallow striæ of *reflexa*.

Cymindis alternans n. sp.—Very moderately convex and shining, piceous, the thoracic and elytral margins, under surface and legs rufous; short erect hairs rather abundant; head nearly four-fifths as wide as the prothorax, strongly, loosely punctate, subimpunctate antero-medially; eyes well developed, rather prominent; antennæ testaceous, of the usual structure, missing in the type beyond the third joint; prothorax fully two-fifths wider than long, widest at anterior two-fifths, with evenly rounded sides becoming gradually and shallowly sinuate for a long distance before the very obtuse and almost blunt angles; base arcuate, narrower than the distinctly sinuate apex, which has the angles rather narrowly rounded; sides broadly reflexed, with a series of long conspicuous bristles; surface evenly convex, the punctures moderately coarse and well separated, sparse antero-medially, the impressed stria distinct, not entire; elytra three-sevenths longer than wide, two-fifths wider than the prothorax, with the sides subevenly arcuate, slightly widest behind the middle; striæ moderately coarse and shallowly impressed, with rather strong distinct punctures; intervals

broadly convex, 2 and 4 much narrower than 3 and 5. Length (♀) 9.2 mm.; width 3.2 mm. A single specimen, unlabeled in the Levette collection, but probably from Colorado.

This is a distinctly isolated species of the *cribricollis* section, in its alternating strial intervals among other characters.

Philophuga Mots.

This genus bids fair to prove a rather large one in temperate North America, and the three following species are hitherto undescribed:

Philophuga obscura n. sp.—Moderately convex, shining, with subalutaceous elytra, deep bluish-black in color, greenish beneath, with deep black legs; surface glabrous as usual; head elongate, four-fifths as wide as the prothorax, convex, feebly and sparsely rugose, sparsely punctured basally and densely so in the shallow apical impressions; eyes moderately prominent, the antennæ black throughout, moderately long, the third joint much longer than the fourth; prothorax a fifth or sixth wider than long, widest well beyond the middle, the sides evenly rounded, becoming oblique and nearly straight posteriad to the widely obtuse and rather blunt though distinct angles; base arcuate, slightly narrower than the very feebly sinuate apex, the latter having obtuse but narrowly rounded angles; surface convex, transversely rugulose, punctate at apex and at the sides basally, with a deep circular impression near the basal angles, the surface declivous and subexplanate thence to about the middle of the length, finely reflexed thence anteriad; elytra not quite a third longer than wide, widest behind the middle and nearly twice as wide as the prothorax, the sides broadly arcuate; apex transversely arcuato-truncate; striæ fine, superficial, with small and separated punctures; intervals virtually flat, with very fine sparse punctures, usually in very uneven single series, the third with two remote discal punctures; scutellar stria well developed. Length (♀) 8.0 mm.; width 3.25 mm. New York (Lake George),—Prof. J. F. Kemp.

The locality of this species is nearer to the Atlantic coast than any other known to me, all the other species being distributed from Texas and Colorado to California; it is a remarkably isolated species.

Philophuga cobaltina n. sp.—Much narrower, ventricose as usual, moderately convex, shining, deep violet-blue, greenish beneath, the legs deep black; head slightly elongate, very nearly equal in width to the prothorax, more greenish, almost smooth, sparsely and moderately punctured toward the sides and base, the anterior impressions coarse; eyes well developed, moderately prominent; antennæ slender, black, the first three joints testaceous, the third much longer than the fourth; prothorax slightly wider than long, widest anteriorly as usual, with feebly arcuate sides, oblique and shallowly sinuate basally, the angles obtuse but sharp; base oblique at the sides, nearly as wide as the very shallowly sinuate apex, the latter having distinct though blunt angles; surface nearly smooth, the ruguliform lines fine and faint, declivous, rugulose and punctulate at the sides, the latero-basal impression very small and feeble; elytra two-fifths longer than wide, a little less than twice as wide as the prothorax, widest behind the middle and arcuately truncate at apex as usual; striæ moderate, not impressed, rather

finely and closely punctate; intervals flat, somewhat strongly, sparsely and unevenly punctate, the two discal punctures of the third barely larger than the other punctures; anterior male tarsi narrowly dilated, parallel. Length (♂) 7.2 mm.; width 2.5 mm. Utah (Trout Creek, Juab Co.),—Spalding.

This also is a very distinct species, but resembles *puella* in its bicolored antennæ; the basal sinus at the sides of the prothorax is much longer than in that species and the elytral striæ are not at all impressed as they are rather deeply, as well as more finely and very obscurely punctate, in *puella*.

Philophuga uteana n. sp.—Bright bluish-green in color throughout, the legs black, the femora with feeble greenish glint, shining; head not quite as wide as the prothorax, but little longer than wide, rather finely, sparsely punctured, the apical impressions moderate; eyes moderate, barely at all prominent; antennæ black, the first three joints testaceous, the third distinctly longer than the fourth; prothorax slightly though distinctly wider than long, the arcuate sides oblique and nearly straight to the strongly reflexed basal angles, which are obtuse and blunt; base arcuate at the sides, very slightly narrower than the scarcely perceptibly sinuate apex; surface strongly and conspicuously, somewhat closely and transversely rugose, punctate at apex and basally, transversely impressed at apex, declivous latero-basally, with large and deep, elongate-oval impression near each angle; elytra less than a third longer than wide, four-fifths wider than the prothorax, more parallel than in the two preceding and only just visibly widest behind the middle; striæ not at all impressed, with close-set and distinct punctures; intervals flat, more finely, irregularly and very remotely punctulate; anterior male tarsi a little longer, not quite so thick and more tapering than in *cobaltina*. Length (♂ ♀) 7.5–8.0 mm.; width 2.9–3.15 mm. Utah (Stockton and Eureka),—Spalding.

Distinguishable easily from *cobaltina* by the broader form, coarse and close transverse rugulæ of the pronotum, larger head and prothorax, finer and more irregular interstitial punctures of the elytra and several other characters.

Lebia Latr.

The following is a pallid species of the *furcata* section, but of a highly distinctive style of elytral marking:

Lebia tempeana n. sp.—Broadly ventricose, rather depressed, pale testaceous, the elytra more yellowish; legs pale testaceous, the ends of the femora and tibiæ, and also the entire tarsi, black, moderately shining, the elytra rather less so; head large, nearly five-sixths as wide as the prothorax, the eyes large and very prominent, the front even, very finely and loosely subrugulose; antennæ moderate, black, the first three joints and small base of the fourth testaceous; prothorax fully four-fifths wider than long, the sides rounded to the apex, which is only two-thirds as wide as the base, just visibly sinuate and without lateral angles, feebly oblique basally to the minutely subprominent but not very sharp basal angles, rather broadly reflexo-deplanate, more widely toward base; surface with fine, loose ruguliform lines, the median stria fine, distinct, not quite entire; elytra slightly widest near apical third, with broadly arcuate sides, scarcely more

than a fourth longer than wide, four-fifths wider than the prothorax, the truncate apex slightly sinuate laterally; humeri broadly rounded; each elytron has a black line, about one-half wider than an interval, from the margin at the humeri to the middle at a slight distance from the apex, also a short, rapidly attenuated line from near the base at inner third, parallel to the suture and ending a little beyond basal fourth; striæ very fine, feebly and closely punctulate, the intervals flat. Length (♀) 6.0 mm.; width 2.8 mm. Arizona (Tempe),—Wade.

This is not closely allied to any of the rather numerous species of the *furcata* group known to me, as may be seen from the nature of the ornamentation. The eyes are larger than in *furcata*, *depicta* and others.

Chlænius Bon.

The species described below belongs to a peculiar group, having the punctures of the elytral striæ segregated into short, widely isolated lines and represented thus far more especially by the Californian *interruptus* of Horn:

Chlænius albertanus n. sp.—Short and relatively very broad, moderately convex, black, with rather obscure cupreous lustre, the under surface and legs deep black and shining throughout; head barely over half as wide as the prothorax, slightly elongate, with moderate but very prominent eyes and strong mandibles, the anterior impressions small and subpunctiform; front smooth and impunctate, with a few irregular and very feeble rugulæ; antennæ as long as the head and prothorax, wholly black; prothorax short, four-fifths wider than long, the sides feebly arcuate, becoming straight and parallel in basal half; base a third wider than the distinctly sinuate apex, the latter having broadly rounding angles, the basal angles right, slightly blunt; surface with coarse and irregularly sparse punctures, not quite so coarse and dense basally, except toward the sides, where the impression near outer fourth is large and deep; sides broadly reflexed throughout the length; median line strong, not quite entire, paralleled at each side by a regular series of coarse punctures in the type; elytra three-sevenths longer than wide, parallel, with arcuate sides, obtusely rounded at apex, about a fourth or fifth wider than the prothorax; general surface not very coarsely but evenly and subgranularly punctate, each puncture bearing a short grayish hair, the striæ very deep, disrupted into short sections; intervals perfectly even throughout and moderately convex; under surface rather finely, sparsely punctured. Length (♀) 12.5 mm.; width 5.6 mm. Canada (Edmonton, Alberta), —Carr.

This is a very distinct species, much larger and broader than *interruptus*, which I have from Siskiyou Co., California, and it is more coarsely sculptured. From *alternatus* Horn, the above description will distinguish it at once.

Opadius Csy.

The following is larger than *cordifer* Notm., less shining and inhabits a very different zoological province:

Opadius piperi n. sp.—Parallel, convex, alutaceous in lustre, black above and beneath, the legs pale yellowish-rufous; head large, three-fourths as wide as the

prothorax, with moderate and feebly convex eyes, the apical impressions minute and punctiform; antennæ testaceous, scarcely compressed, the medial joints between two and three times as long as wide; prothorax two-fifths wider than long, parallel, inflated but with feebly rounded sides in about anterior half, thence broadly sinuate basally, the angles rather prominent but with somewhat blunt apices; lateral edges finely reflexed and pallescent; surface smooth, scarcely at all punctured basally, the basal impression at outer fourth narrow and moderate; median line feebly impressed and fine, not extending to the finely rufescent apex; elytra one-half longer than wide, parallel, at the middle of the evidently arcuate sides only just visibly wider than the prothorax, the apical sinus short and feeble; striæ deeply impressed, rather coarse, smooth, only a little deeper apically; intervals broadly convex, alternating slightly in width, impunctate, the third with a small deep median fovea near apical two-fifths; tarsi rather short and thick. Length (♀) 9.0 mm.; width 3.6 mm. Michigan (Grayling—near Bay City),—C. V. Piper.

This singular species is much larger than either *cordatus* Lec., or *cordifer* Notm., not shining and with larger head and notably less prominent eyes; *cordatus* and *cordifer* have the pronotum punctulate basally; they are mutually closely allied, but in *cordatus* the head is a little smaller than in *cordifer*, and the antennæ are more slender and evidently longer; the body is slightly broader; it is from Arizona, *cordifer* being an inhabitant of the British Columbia regions; it has been taken recently by Prof. Piper at Seattle in Washington State. The anterior male tarsi in this genus are only very feebly swollen.

Harpalus Latr.

During the past few years the material sent in from many sources has materially increased the number of species, so that now it seems desirable to incorporate these new species with those described in my revision (Mem. Col., V, 1914, p. 69). The species described by Mr. Notman under the name *Harpalus cordifer* is, as readily seen from a cotype now at hand, a member of the genus *Opadius;* it is narrower and more parallel than *cordatus* Lec. *Harpalus convictor* Csy., placed in synonymy with *viridiæneus*, proves by recent material from Pennsylvania to be at least subspecifically different; it has a less transverse prothorax than *viridiæneus*, with the sublateral basal impression, which is there very constant, almost wholly obliterated. A subspecific form of *H. caliginosus* Fabr., may also be announced as follows:

Harpalus (**Megapangus**) **caliginosus** ssp. **dux** nov.—This subsidiary form is larger than *caliginosus*, with still much larger head, less transverse prothorax and very much flatter strial intervals of the elytra, also with the general lustre of the body more subopaque. Length (♀) 25.5 mm.; width 9.8 mm. Southern Illinois.

The original type of this form was alluded to in my revision (l. c., p. 71). The largest specimen of the typical *caliginosus* at hand is a female, 24 by 9.3 mm. in dimensions; it is one of the very few species occurring throughout the country, from the Atlantic to the Pacific, and displays comparatively little variation throughout this vast range.

The range of *Harpalus* (*Harpalomerus*) *amputatus* Say, according to ample material in my collection, is from Kansas and New Mexico to Colorado, Utah and Arizona. Of *transversus*, my series of four specimens is from Utah; it may be distinguished at a glance by its larger size and much more transverse prothorax. Of *papagonalis* I now have another example, also a female and wholly testaceous-yellow, from Utah. The five following seem also to be true species in this subgenus, and in two cases occupy widely different geographic stations:

Harpalus (Harpalomerus) bracatus n. sp.—Subparallel, rather convex, shining and deep black, the elytra (♀) opaculate, the fine reflexed margins testaceous; legs black, with piceo-rufous tibiæ and tarsi, those of the anterior more rufous; head convex, fully three-fifths as wide as the prothorax, with some sparse rugulation, the clypeus with sparse longitudinal folds, the eyes prominent; antennæ testaceous, almost as long as the head and prothorax, the medial joints on the flatter side fully three-fourths longer than wide; prothorax barely one-half wider than long, widest slightly beyond the middle, the sides subevenly arcuate, all the angles broadly rounded; surface with many widely separated ruguliform furrows, those at apex and medio-basally longitudinal; basal punctures numerous, the inner impression rather deep and longitudinal; elytra three-sevenths longer than wide, a fourth or fifth wider than the prothorax, obtusely rounded at apex, the latter subtransversely, rectilinearly truncate (♀), the outer angle broadly rounded; striæ impunctate, sharp and deep, impressed apically, the puncture adhering to the second near apical fifth; intervals nearly flat. Length (♀) 10.5 mm.; width 4.2 mm. Utah (Miner's Peak),—Spalding.

Differs from *amputatus* in its slightly larger size and broader form, absence of metallic coloration and more opaque elytra of the female, also in its much less abbreviated and more strongly rugulose prothorax; consequently it differs in habitus to a marked degree.

Harpalus (Harpalomerus) ancillaris n. sp.—Parallel, moderately convex, black and shining, the elytra feebly picescent but without trace of metallic lustre; legs rufo-piceous, the tarsi paler; head and antennæ nearly as in *amputatus*, the latter piceous, the medial joints (♂) on the flat side twice as long as wide; prothorax nearly as in that species, but not quite so abbreviated and with the surface at the sides basally not at all subexplanate; elytra also as in *amputatus*, but not so evidently wider than the prothorax and not at all metallic in lustre; anterior and middle tarsi (♂) a little more strongly dilated, similarly pale. Length (♂) 10.0–10.3 mm.; width 3.9 mm. Oregon (Columbia River),—Shantz. Two specimens.

Allied to *amputatus* but more parallel, with less abbreviated prothorax and piceous but not in the least metallic elytra.

Harpalus (Harpalomerus) rotundicollis Kirby—Form rather short and broad, ventricose, black, with feeble greenish lustre, not very shining, the elytra opaque (♀); legs as in *cuculus;* head nearly two-thirds as wide as the prothorax, with very prominent eyes and smooth surface, the anterior impressions small but deep; antennæ piceous, nearly as long as the head and prothorax, four-sevenths wider than long, widest slightly beyond the middle; all four angles broadly rounded; surface very smooth, the stria biabbreviated; sides toward base narrowly but abruptly explanate; basal impressions and punctures nearly as in *amputatus;* elytra much shorter, not two-fifths longer than wide, a fifth wider than the prothorax; apex (♀) somewhat as in *cuculus;* striæ fine, only a little stronger, but not impressed, distally, the discal puncture deep, near to the second stria at apical fourth; intervals wide and flat. Length (♀) 10.0 mm.; width 4.0 mm. Canada (Edmonton, Alberta),—Carr. One specimen.

Distinguishable at once from *amputatus* by its shorter, broader form, duller integuments and perfectly flat strial intervals.

Harpalus (Harpalomerus) cupreolatus n. sp.—Piceo-rufous, the upper surface darker but with very bright polished subcupreous lustre, the narrow lateral reflexed edges testaceous; head barely four-sevenths as wide as the prothorax, with prominent eyes, the anterior impressions short, deep and subpunctiform; antennæ obscure testaceous, slender, as long as the head and prothorax, only slightly compressed, the joints moderately swollen at apex on their narrower sides; prothorax four-sevenths wider than long, parallel, with evenly arcuate sides and broadly rounded angles; base wider than the sinuate apex having rounded angles; surface smooth, with some feeble transverse rugulæ, the anterior impression distinct medially, the median line very fine, widely biabbreviated; latero-basal surface with rather strong close punctures, the impression at outer fourth deep, oblong; elytra less than one-half longer than wide and a fifth or sixth wider than the prothorax, the sides nearly straight medially; apex obtuse, the male truncature oblique; striæ fine, smooth and abrupt, the scutellar moderately long, not free; intervals perfectly flat; anterior male tarsi distinctly dilated through the usual first four joints. Length (♂) 10.4 mm.; width 3.9 mm. Washington State (Pullman).

Distinguishable from any of the other species of the subgenus in the brilliant cupreous lustre and perfectly flat strial interval; on the third, adjoining the second stria, there is a small puncture at two-thirds.

Harpalus (Harpalomerus) cuculus n. sp.—Narrow, subparallel, polished throughout (♂), black, with feebly rufescent thoracic margins and elytral suture, wholly devoid of metallic lustre; legs rufous, also the trochanters, the femora black; head relatively large, two-thirds as wide as the prothorax, the eyes prominent; antennæ testaceous, compressed, about one-half longer than the prothorax, the latter only two-fifths wider than long, subparallel, the sides almost evenly and distinctly arcuate, the basal angles broadly rounded; sides feebly, sparsely punctulate and well reflexed; surface smooth, the basal impressions large, rounded, shallowly concave and strongly, rather closely punctate; elytra one-half longer than wide, barely visibly wider than the prothorax, the apices with straight and

feebly oblique, clearly defined truncature; striæ strong, the intervals convex; first and second male tarsi well dilated. Length (♂) 9.5 mm.; width 3.4 mm. New Mexico (Las Vegas). One specimen.

Remarkably different from *amputatus* in its much narrower and more parallel form, larger prothorax and absence of metallic lustre.

In the *pennsylvanicus* group, some additional material gives me very good series of several species other than the common *erythropus*, *compar* and *pennsylvanicus*, notably *texanus*, the twelve specimens demonstrating very well the isolation of this species, as do also the eight examples of *dolosus*. I am very glad to find also a second specimen of *thoracinus*—the type being an immature female, sent to me from northern Illinois; the strial intervals are decidedly flatter than in the type. The species is quite different from any other in facies, though allied in some respects to *protractus* and *longicollis*. The following are some additional species of this group:

Harpalus latescans n. sp.—Oblong, moderately convex, deep black, shining, the elytra less so even in the male; under surface deep black, the legs pale rufous throughout; head smooth, with prominent eyes, scarcely three-fifths as wide as the prothorax, the parallel anterior impressions deep, coarse and linear; antennæ ferruginous, long and slender, the medial joints three times as long as wide, only slightly compressed; prothorax large, rather less than a fourth wider than long, the parallel sides very evenly and distinctly arcuate; anterior impression distinct medially, the coarse deep stria extending thence to the basal margin; lateral margins not narrowly impressed, more broadly posteriad, punctate; basal punctures extended, moderate and rather dense, the inner impression linear but shallow and broadly concave; angles obtuse and moderately widely rounded; elytra rather short, three-fifths longer than wide, with parallel and broadly arcuate sides, at the middle a fifth or sixth wider than the prothorax; striæ rather coarse and deeply impressed, the scutellar long, free; dorsal puncture wanting as usual in this group; intervals broadly convex, with small separated punctures, sparse or almost wanting on 1, 2 and 4, except basally on the last; anterior male tarsi well dilated, the second joint triangular, fully as long as wide. Length (♂) 12.0 mm.; width 4.5 mm. Pennsylvania.

This species is allied to *vagans* Lec., but is relatively shorter and broader in outline, with larger prothorax and much shorter elytra, the frontal impressions linear and not small and punctiform, and the elytral punctures more numerous, being almost wanting on inner half in *vagans*. The most pronounced difference, however, is in the hind tarsi, which, in the present species, are more slender and much more pubescent throughout, being virtually glabrous above in *vagans*.

Harpalus immixtus n. sp.—Narrow, moderately convex, deep black and moderately shining, the under surface black, the metasternum medially, the coxæ and entire legs pale testaceous; head almost two-thirds as wide as the prothorax, with rather large and prominent eyes and small linear anterior frontal strioles;

antennæ slender, testaceous, the medial joints two and one-half times as long as wide; prothorax three-sevenths wider than long, the moderately, subevenly arcuate sides a little more converging anteriorly, somewhat widely reflexed, gradually more broadly so and flatter behind, finely, closely punctate, joining the large, feebly concave latero-basal areas, which are closely punctured, the base abruptly impunctate medially; anterior impression deep, joined to the base by the coarse impressed stria; sublateral basal impressions large, parallel and moderately concave; elytra fully two-thirds longer than wide, nearly a fifth wider than the prothorax, with parallel and slightly arcuate sides; striæ rather fine but deeply impressed, the intervals strongly convex, with a few fine punctures arranged near the striæ, the eighth almost throughout basally; posterior tarsi subglabrous above, the two anterior (♂) well dilated and sparsely pubescent. Length (♂) 10.5 mm.; width 4.0 mm. New York (Adirondack Mts.—Keene Valley),—Kemp.

Not closely allied to any other species, but to be placed near *vagans* in the list; it is smaller and very much narrower, with shorter antennæ, more transverse prothorax and has many other incongruities.

The following is a very small species of the *pennsylvanicus* section, which may be placed just after *immixtus:*

Harpalus cupiens n. sp.—Rather narrow, moderately convex, alutaceous in lustre (♀), piceous in color above and beneath, the legs pale brownish-yellow; head large, fully three-fourths as wide as the prothorax, with notably convex, moderate eyes and very small deep apical impressions; antennæ testaceous, compressed, the medial joints twice as long as wide on the flattened sides; prothorax two-fifths wider than long, the parallel sides evenly, very moderately arcuate from apex to base, the angles slightly blunt and a little more than right; surface smooth, with rather broadly and feebly impressed median line, closely punctulate toward base, scarcely so medially; basal impression at outer fourth large, shallowly concave and rounded; elytra parallel, four-sevenths longer than wide, at the middle nearly a third wider than the prothorax; striæ rather coarse, deep, smooth, the intervals feebly convex, impunctate, the ninth with strong, sparse and narrowly spaced punctures throughout; posterior sinus short, near the apex and shallow. Length (♀) 10.2 mm.; width 3.85 mm. Northern Illinois. One specimen.

Not closely comparable with any other species and by far the smallest of this group.

Harpalus feroculus n. sp.—Rather narrowly elongate-suboval, convex, deep black, polished, the elytra (♀) opaculate; under surface black, the median line —also sides of the abdomen—more or less rufescent, the femora and coxæ pale testaceous, the tibiæ and tarsi piceous; head relatively large, three-fourths as wide as the prothorax, with moderate eyes and small punctiform frontal impressions; antennæ slender, testaceous, much shorter than the head and prothorax, the medial joints about three times as long as wide; prothorax barely a fourth wider than long, parallel, with apex almost as wide as base, the sides very evenly, moderately arcuate, the marginal gutter moderate, punctate as usual; anterior impression feeble but visible, the sulcus uniting it with the base moderate; latero-basal region densely, not very coarsely punctate and broadly, feebly concave, except at the sides; punctures finely and sparsely crossing the middle;

elytra four-sevenths longer than wide, a fifth wider than the prothorax, the parallel sides broadly arcuate; striæ sharp and deep, the intervals not quite flat, with very few minute punctures basally toward the sides, the eighth minutely, sparsely punctate throughout; hind tarsi glabrous, the others finely, sparsely pubescent above. Length (♀) 13.5 mm.; width 4.5 mm. Rhode Island (Boston Neck).

This species, while associable with *erythropus*, differs in its more elongate and relatively narrower form, much larger head, longer prothorax and in the punctuation of the elytra of the female. It is represented at present by a single specimen.

Harpalus admissus n. sp.—Oblong, subparallel, moderately convex, deep black, moderately shining, the elytra (♀) opaculate; under surface piceous, the legs rufous; head large, about three-fourths as wide as the prothorax, with well-developed and moderately prominent eyes; antennæ testaceous, almost as long as the head and prothorax, only feebly compressed, the medial joints about three times as long as wide; prothorax a fourth (♂) or a third (♀) wider than long, parallel, the sides very evenly, moderately arcuate; marginal gutter deep, punctate, dilated but little behind; latero-basal area finely, rather closely punctate, nearly flat, the inner impression longitudinal and distinct; apical impression obsolete, the stria fine, ending at the position of the transverse impression as usual in this group; elytra two-thirds (♂), one-half (♀), longer than wide, evidently wider than the prothorax, the parallel sides feebly arcuate; striæ sharply incised, coarser at apex; intervals feebly convex, nearly flat (♀), subimpunctate throughout, the female with a few small scattered punctures; two anterior tarsi (♂) strongly dilated but almost glabrous above. Length (♂ ♀) 12.5–14.0 mm.; width 4.6–4.8 mm. Minnesota (Duluth), New York (Lake Champlain) and Hudson Valley (West Point). Four specimens.

In the typical pair from Duluth, the male is more elongate than the female, with longer prothorax and elytra—to a degree not noticeable in any other species; *admissus* may be placed between the preceding and *erythropus;* it is larger than the latter and with much larger head.

The following species may be placed next to *admissus* in the list:

Harpalus excubans n. sp.—Parallel, rather convex, highly polished throughout (♂), piceous-black above, in great part testaceous beneath, the legs pale brownish-flavate; head well developed, rather more than two-thirds as wide as the prothorax, with moderate but strongly convex eyes and minute apical impressions; labrum piceous, the mandibles rufous; antennæ testaceous, rather long, feebly compressed, on the flattened sides, almost three times as long as wide; prothorax a third wider than long, the subparallel sides broadly, subevenly arcuate, a little more so and feebly converging apically, the basal angles obtuse, with rounded apices; sides with rather deep and finely punctured gutter; surface finely, closely punctured toward base, obsoletely at the middle, with a large, rounded, feebly concave impression at outer fourth; median line distinct, not quite attaining the apex; elytra three-fifths longer than wide, at the middle barely visibly wider than the prothorax, the parallel sides feebly arcuate, the apical sinus rather long, very shallow; striæ deeply impressed, exarate apically, smooth, the intervals moderately convex, impunctate; anterior male tarsi strongly dilated, the middle a little less so. Length (♂) 13.5 mm.; width 4.7 mm. Rhode Island (Watch Hill),—Wirt Robinson.

More abbreviated than in *admissus* and piceous-black in color, with more transverse prothorax; the shorter elytra conform more closely with those of the Sonoran *nactus* and *pimalicus*.

Harpalus paratus n. sp.—Oblong, subparallel, only moderately convex, rather shining, the elytra alutaceous (♀), black to more or less piceous, in great part piceo-rufous beneath, the legs rufous; head large, three-fifths to two-thirds as wide as the prothorax, with well-developed prominent eyes; antennæ testaceous, not very slender, feebly compressed, the medial joints on the flattened side about twice as long as wide; prothorax short, nearly one-half wider than long, otherwise almost as in *compar;* elytra one-half to three-fifths longer than wide, a fifth or sixth wider than the prothorax, the parallel sides feebly arcuate; striæ distinct, sharply incised, coarse and deeper at apex, the intervals almost flat in both sexes; two anterior tarsi (♂) only moderately dilated and with but very few stiff hairs above; sides of the metasternum sparsely but evidently, the entire metepisterna extremely minutely and sparsely, punctulate. Length (♂ ♀) 12.5–14.7 mm.; width 4.75–5.6 mm. Colorado (Akron and Larimer Co.). Six specimens.

A distinctly characterized species of the *pennsylvanicus* group that may be placed near *compar* in the list; it has a very much more abbreviated prothorax, among other differences.

The characters used to discriminate the *viduus* and *fraternus* groups are apparently not usefully effective, and I have therefore assigned the numerous new forms, here brought to notice, to positions merely with reference to described species, disregarding groups. It will be very difficult to define clearly delimited sections in this neighborhood, except by general habitus; for instance, a large head or a small or moderate head might form a convenient basis for two major sections, more easily observable than those derived from accessory abdominal setæ and quite as effective taxonomically. Under this system species from *patronus* to *recisus*, including *lewisi*, *fraternus* and *lecontei*, would form one section and the remaining host of smaller species another.

Of the described species in the *viduus* and *fraternus* groups, as defined by the author, many specimens of *lewisi*, *lecontei* and *fraternus* have been received. One male of *fraternus* is so much larger than any of the others, less shining and with such different habitus, that it may form a subspecies as follows:

Harpalus fraternus ssp. **nimius** nov.—Larger than *fraternus*, with rather less polished integuments in the male, the antennæ compressed, longer; prothorax larger; elytra nearly similar, but with the apical sinuses deeper; hind tarsi notably longer; coloration similar. Length (♂) 14.5 mm.; width 5.8 mm. Oregon (Columbia River).

The dimensions of the eleven males of *fraternus* in my collection are 12.0–13.7 by 5.0–5.5 mm. Of *oregonensis* I have an additional

specimen from Corvallis, of *pumilio* another exactly similar female from Edmonton, Alberta, of *placidus* other specimens from Frost, numerous examples of *somnulentus*, from various parts of Washington State and British Columbia, specimens of *lacustris* from Marquette, many specimens of *oblongus* from various parts of Utah and also Wawawai, Washington State—the color is deep black, the type being immature—and one additional example of *curticornis*, from Colorado.

A large series of *lewisi* received from Mr. Sherman, shows that *æsopus*, described by me from Lake Champlain, is truly a synonym. At the time of the revision my only representative of *lewisi* was a female specimen in immature condition. It has also been sent to me from Maine by Mr. Frost.

Of *lividulus*, described from Wisconsin, I now have specimens from New Mexico, from Maryland (Hagerstown) and Virginia (Norfolk); it is allied to *herbivagus* Say, but is smaller and black, with piceous elytra; the male is more abundant than the female, the contrary being the case in *herbivagus*.

The two following species may be placed near *providens* Csy.:

Harpalus præstans n. sp.—Oblong, convex, very deep black, shining, the elytra (♀) opaque; under surface and legs throughout black; head over two-thirds as wide as the prothorax, with small punctiform apical frontal impressions and moderate but prominent eyes; antennæ piceous, the first three joints black, only a third longer than the prothorax, the medial joints more or less than twice as long as wide; prothorax scarcely one-half wider than long, parallel, with feebly arcuate sides, straight basally, the angles but little more than right and distinct, only very narrowly blunt; transverse impressions almost obsolete, the stria very fine; latero-basal parts flattened, impunctate, except the broad inner impression, which is moderately punctate; lateral gutter gradually obsolete toward base; elytra scarcely over one-half longer than wide, a fourth or fifth wider than the prothorax, with parallel and broadly arcuate sides; striæ fine but sharply incised, coarse and impressed on the declivity, the scutellar long; intervals wide, nearly flat, impunctate. Length (♀) 13.0 mm.; width 5.5 mm. Utah (Provo Cañon), —Spalding.

Easily separable from *providens* (♀) by the shorter prothorax and longer, apically more obtuse, elytra, much more prominent eyes and many other structures.

Harpalus animosus n. sp.—Much narrower, convex, similar in color and lustre; head three-fourths as wide as the prothorax, with small but deep punctiform frontal impressions, the eyes rather small and feebly convex; antennæ scarcely one-half longer than the prothorax, nearly as in *præstans;* prothorax shorter, rather more than one-half wider than the median length, the sides parallel, moderately but very equally arcuate, not straighter toward base, the angles more obtuse, with broadly and roundly blunt tips; surface nearly as in the preceding, the transverse rugulæ toward the middle more distinct, the inner basal impression deeper and more narrowly linear, the surface thence to the sides not so flat and

more distinctly though not strongly rugulose; elytra three-fifths longer than wide, scarcely a fifth wider than the prothorax, the sides parallel; striæ almost similar but not so coarse or impressed apically, the scutellar much shorter; intervals virtually flat, the opacity (♀) brokenly sericeous and not equal throughout, as it is in *præstans*. Length (♀) 14.0 mm.; width 4.85 mm. Utah (Miner's Peak), —Spalding.

Differs from *præstans* in its much narrower outline, similarly large head but with smaller and far less prominent eyes, shorter prothorax, with much more narrowly rounded apical angles, the basal differing as stated, and in the different character of elytral opacity in the female.

Harpalus fanaticus n. sp.—Size very moderate, subparallel, convex, deep black, shining, the elytra (♀) subsericeous, alutaceous; under surface and legs piceo-rufous; head notably large, almost four-fifths as wide as the prothorax, the eyes very moderate but prominent; frontal impressions small, short, deep and sublinear; antennæ testaceous, one-half longer than the prothorax, distinctly compressed; prothorax almost one-half wider than long, widest slightly beyond the middle, the sides distinctly arcuate, gradually less so basally, the angles obtuse and bluntly rounded; apex broadly sinuate, with rounded angles; surface with subobsolete transverse impressions and fine abbreviated stria; latero-basal region virtually impunctate, the inner impression rather deep, linear, with a few minute punctules; elytra only two-fifths longer than wide, nearly a fourth wider than the prothorax, with parallel and broadly arcuate sides; striæ moderate, not very deep, coarser and impressed distally, the scutellar long; intervals broadly, feebly convex, impunctate. Length (♀) 10.0 mm.; width 3.8 mm. Utah (The Mammoth—Summit of Parowan Mts.—elev. 10000 ft.),—Knaus.

Much smaller than either of the two preceding and not closely allied to any known species.

Harpalus amiculus n. sp.—Still much smaller, parallel, convex, deep black and polished throughout (♂); under surface shining, black, the epipleura narrow and paler; legs pale rufous throughout; head fully two-thirds as wide as the prothorax, the eyes moderate and notably prominent; apical impressions minute and punctiform; antennæ testaceous, slender, about as long as the head and prothorax, the latter only two-fifths wider than long, parallel, with moderately and evenly arcuate sides and broadly rounded basal angles; surface with shallow transverse impressions and fine subentire stria; reflexed sides and the basal margin diaphanously rufous, the former very fine apically, gradually wider, turning inward and moderately punctate posteriad; inner impression rounded, shallow and punctate, the surface along the rounded angles tumid; elytra two-fifths longer than wide, as wide as the prothorax, the parallel sides broadly arcuate; striæ strong, deep and impressed, the intervals convex and impunctate; two anterior tarsi (♂) moderately dilated. Length (♂) 8.0 mm.; width 3.0 mm. New York (Lake George),—Kemp.

There is no other species with which this can be compared in any way closely, except *recisus*. It is much smaller than *recisus*—of which I have recently received another blacker female specimen from Illinois—and narrower in outline, with more deeply sinuate

thoracic apex and more uneven latero-basal parts of the surface, also shorter and more slender hind tarsi.

The following is a remarkably parallel and rectilinear species that may be placed near *fenisex:*

Harpalus spaldingi n. sp.—Parallel, moderately convex, shining, blackish-piceous, very shining and black beneath, the legs bright rufous; head large, between two-thirds and three-fourths as wide as the prothorax, with rather large and subprominent eyes and minute punctiform strioles; surface very smooth; antennæ rather slender, rufous; prothorax long, only three-sevenths wider than long, the parallel sides evenly and very moderately arcuate throughout; sides punctulate and narrowly reflexed, more broadly and deplanately toward base; angles all rounded; surface very smooth, with moderate and apically abbreviated stria, the transverse impressions obsolescent; basal impression at outer fourth broad, shallow and moderately punctate, feebly but finely linear along the bottom, the surface thence to the sides very minutely, loosely punctulate; base but slightly wider than the apex; elytra two-thirds longer than wide, not evidently wider than the prothorax, the sides nearly straight; apex gradually rounded, the sinus long and very feeble; striæ abrupt, deep, smooth, the scutellar rather long, free; intervals almost flat, impunctate; first male tarsi rather broadly dilated, the second a little less so. Length (♂) 12.6 mm.; width 4.2 mm. Utah (Vineyard),—Mr. Tom Spalding. One specimen.

This species seems to be very distinct and may be recognized by the rectilinearly parallel form and rather long, subquadrate prothorax, among other characters.

Harpalus conspectus n. sp.—Oblong-suboval, convex, smooth, shining, the elytra not appreciably duller in the female, black, with fine testaceous edges, the elytra with greenish-metallic lustre; under surface black, the legs pale yellowish-testaceous; head longer than wide, nearly two-thirds as wide as the prothorax, the eyes well developed but only feebly convex; antennæ scarcely one-half longer than the head, testaceous, somewhat compressed; prothorax three-sevenths wider than long, the sides parallel, subevenly and feebly arcuate; transverse impressions subobsolete, the stria very fine and evanescent; side margins unusually finely reflexed; latero-basal region convex, impunctate, the inner impression rather deep but finely linear; elytra oblong-oval, three-sevenths longer than wide, parallel, with rather strongly arcuate sides and fully a fourth wider than the prothorax; striæ impunctate, strong but shallow, deep and impressed on the declivity, the scutellar proceeding from a post-basal puncture adjoining the second stria; intervals nearly flat, narrow and convex on the declivity. Length (♀) 8.2 mm.; width 3.3 mm. Canada (Mt. Royal, Quebec).

I am at a loss to place this species, especially in the absence of the male. It might come near *lacustris* and species of that section, because of the subscutellar fovea, but the relatively longer head and the metallic coloration, isolate it there; perhaps it may as well come after *recisus* and *amiculus.*

Harpalus reversus n. sp.—Oblong, subparallel, rather convex, deep black and highly polished throughout (♀); under surface and legs black; head fully three-fifths as wide as the prothorax, with well-developed, prominent eyes, the apical

frontal impressions very small, punctiform; antennæ piceo-rufous, one-half longer than the prothorax, the latter one-half wider than long, the parallel sides feebly arcuate, straight to faintly sinuate behind the middle; basal angles only slightly blunt, the apical broadly rounded; surface with sparse feeble rugulæ in part, the anterior impression very feeble; latero-basal surface closely punctate and subrugose, the inner impression but feebly differentiated; lateral reflexed margins translucently testaceous; elytra one-half longer than wide, a sixth wider than the prothorax, with parallel and feebly arcuate sides; striæ rather strong, sharply incised; intervals nearly flat, feebly convex distally. Length (♀) 10.4–12.3 mm.; width 4.4–4.8 mm. Michigan (Marquette),—Sherman. Seven specimens.

This is a very remarkable species of moderately large size, because of its extreme resemblance in outward appearance to *lecontei* (*oblitus* || Lec.). In the latter species the elytra in the female are always subopaque, while here they are shining, with varnish-like lustre; the male is not at hand at present. In *rufimanus* Lec., the size is much smaller and narrower and the elytra are opaculate in the female; *lecontei* is represented by a large series from various regions in western Texas, New Mexico, Arizona, Colorado and Utah; the sides of the prothorax are feebly arcuate basally and not straight or broadly sinuate, as they are in *reversus*.

The following belongs near *lividulus* but is narrower, with smaller head and with more metallic coloration:

Harpalus agitabilis n. sp.—Small, rather convex, oblong-suboval, polished black, the elytra with greenish-metallic lustre, the margins of the prothorax diaphanously testaceous; under surface black, the legs rufo-testaceous; head rather longer than wide, barely three-fifths as wide as the prothorax, with minute and feeble distal impressions, the eyes only moderately convex; antennæ testaceous, scarcely as long as the head and prothorax, the latter not quite one-half wider than long, widest at a little beyond the middle, the sides broadly arcuate, less so posteriad, the angles blunt; surface wholly impunctate, the transverse impressions very faint; inner basal impression very feeble and broadly linear; elytra parallel, with distinctly arcuate sides, two-fifths longer than wide, almost a third wider than the prothorax; striæ rather fine but incised, barely at all coarser on the declivity, the scutellar fine, extending from a strong puncture; intervals flat, narrower but not convex distally; first two male tarsi rather narrowly dilated. Length (♂) 7.6 mm.; width 2.8 mm. District of Columbia. One specimen.

The type is easily distinguishable from the male of *lividulus* by its much narrower head and prothorax, shorter and more finely striated elytra, with metallic lustre, and many other characters.

Harpalus columbianus n. sp.—Oblong, parallel, notably convex, polished (♂) and deep black; under surface black, the femora black, the two anterior coxæ and all the tibiæ and tarsi dark rufous; head four-sevenths as wide as the prothorax, fully as long as wide, with moderate but notably prominent eyes, the apical impressions minute but incised and linear; antennæ almost as long as the head and prothorax, testaceous; prothorax barely one-half wider than long, the subparallel sides feebly arcuate, the basal and apical angles subequally and widely rounded; surface smooth, convex, impunctate, the transverse impressions

vague and very faint, the inner basal linear, impressed and minutely, feebly punctulate; elytra nearly one-half longer than wide, about equal in width to the prothorax, with parallel and feebly arcuate sides and obtuse apex; striæ fine, the scutellar with anterior puncture; intervals flat, still wide and barely at all convex distally. Length (♂) 9.75 mm.; width 3.8 mm. British Columbia (Goldstream).

The male type is separable very easily from *pellax*, to which it is most closely allied, by the narrower head and prothorax, much finer elytral striation and especially by the more narrowly dilated anterior and middle tarsi; in both, the side margins of the prothorax are very finely reflexed and not obviously diaphanously paler, and the discal elytral puncture is near apical fourth to fifth.

Harpalus obnixus n. sp.—Subparallel, rather convex, deep black, the under surface and legs black, with piceous coxæ, tibiæ and tarsi; elytra (♀) opaculate; head (♂) four-sevenths as wide as the prothorax, nearly three-fifths (♀), with moderate but rather prominent eyes, the antennæ slender, testaceous and as long as the head and prothorax, the latter only a third wider than long (♂), or two-fifths (♀), smooth, impunctate, the basal parts very feebly subrugulose, with some short longitudinal folds medio-basally; transverse impressions virtually obsolete, the stria fine and feeble, much abbreviated as usual; sides parallel, very moderately and subevenly arcuate, with subequally and widely rounded apical and basal angles and finely reflexed side margins; elytra one-half (♂), or two-fifths (♀), longer than wide, very slightly wider than the prothorax, the parallel sides feebly but evidently arcuate; striæ fine but incised, not evidently coarser distally; intervals almost flat, opaque in the female; two anterior male tarsi rather strongly dilated. Length (♂♀) 9.0–10.4 mm.; width 3.65–4.0 mm. Utah (Provo Cañon),—Spalding. Three specimens.

This distinct species may be assigned a place near *peritus*, from Reno, Nevada, the male differing from the same sex of *peritus* in its narrower head, with smaller eyes, much longer prothorax, with the basal punctuation of that species wanting, in its longer antennæ and in many other structural features.

Harpalus parowanus n. sp.—Subparallel, moderately convex, deep black and highly polished throughout (♂); under surface black, the legs ferruginous, with black femora; head nearly three-fourths as wide as the prothorax, the eyes moderate and only very moderately convex; apical impressions very small, the antennæ testaceous, almost as long as the head and prothorax, the latter rather short, somewhat over one-half wider than long, the sides parallel, evenly and moderately arcuate, the obtuse basal angles broadly rounded, the apical about similar; side margins very narrowly reflexed, feebly rufescent; anterior impression evident toward the middle; basal foveæ broadly, feebly impressed, with some fine obsolescent ruguliform punctulation; elytra two-fifths longer than wide, a fifth wider than the prothorax, with parallel and broadly arcuate sides and obtusely rounded apex; striæ rather coarsely incised, deeper and impressed distally, the scutellar long, with anterior puncture, the discal puncture near three-fourths; intervals broadly, feebly convex, narrower and more strongly so on the declivity; two anterior male tarsi well dilated. Length (♂) 9.0 mm.; width 3.4 mm. Utah (The Mammoth, Parowan Mts.—10000 feet).

A distinctly characterized species, which for the present may follow the last, but the relatively large head may necessitate its removal to the vicinity of *lecontei* and other much larger species.

Harpalus contactus n. sp.—Narrower, moderately convex, rather shining, black, the side margins of the prothorax diaphanously rufous; under surface black, the legs rufo-piceous, the femora blacker; head two-thirds as wide as the prothorax, with rather long neck, prominent eyes and small anterior foveoles; antennæ testaceous, not quite so long as the head and prothorax, the latter somewhat more than one-half wider than long, the sides broadly arcuate, nearly straight posteriad; transverse impressions feeble but evident; inner basal fovea large, broadly impressed and rather closely punctulate; basal angles moderately rounded, the apical more broadly; elytra nearly one-half longer than wide, very slightly wider than the prothorax, the parallel sides broadly arcuate, incised striæ relatively rather strong, coarse and impressed on the declivity, the scutellar short, with puncture; intervals feebly convex, more so on the declivity; anterior male tarsi well dilated but short, the third and fourth joints unusually short and transverse. Length (♂) 8.4 mm.; width 3.3 mm. Utah (Cedar City),—Spalding.

May be placed next to the preceding species; it does not seem to be closely allied to any other; the anterior male tarsal joints are unusually transverse.

Harpalus uintanus n. sp.—Larger and broader, the habitus more nearly as in *columbianus*, deep black and polished (♂); under surface black, the legs fusco-rufous, the femora black; head rather large, two-thirds as wide as the prothorax, with long neck, prominent eyes and small but deep impressions; antennæ testaceous, distinctly shorter than the head and prothorax, the latter large, not three-sevenths wider than long, widest near apical two-fifths, the moderately arcuate sides becoming nearly straight in basal half; all four angles rather broadly rounded; margins only very finely reflexed; impressions subobsolete, the abbreviated stria fine, entire; base, except medially, punctulate, the punctures of the broadly impressed inner foveæ close and distinct, thence minute, sparse and indistinct to the sides; elytra three-sevenths longer than wide, not distinctly wider than the prothorax, the parallel sides feebly arcuate, the apex obtuse; striæ moderate but deeply incised, the scutellar long, with anterior puncture; intervals feebly convex, more so on the declivity; anterior male tarsi well dilated, the joints gradually diminishing in width and length. Length (♂) 9.4 mm.; width 3.7 mm. Utah (Cedar City),—Spalding.

Differs very much from *contactus* in its larger size, less transverse prothorax, much longer scutellar stria and other characters; although well developed, the head is relatively not so large as in *parowanus*.

Harpalus antiphon n. sp.—Much smaller, rather convex, deep black, shining, the elytra slightly alutaceous (♀); under surface black, the legs piceo-rufous, the femora somewhat darker; head four-sevenths as wide as the prothorax, with rather long neck and notably prominent, moderate eyes; antennæ slender, testaceous, four-fifths as long as the head and prothorax, the latter three-sevenths wider than long, the subparallel sides feebly arcuate, gradually more so and a little more converging anteriad; four angles well rounded; margins very finely

reflexed, feebly rufescent; surface smooth and wholly impunctate, with the impressions at best vestigial; inner basal impressions narrow, linear and feeble, with a few minute punctules at the bottom; elytra nearly three-sevenths longer than wide, subequal in width to the prothorax, the parallel sides only feebly arcuate; striæ finely incised, the scutellar short, with the usual puncture of this section; intervals flat. Length (♀) 7.8 mm.; width 2.85 mm. New Mexico (Jemez Springs).

This species and the following may come next to *ellipsis* Lec., but they are smaller and much narrower.

Harpalus fractus n. sp.—Similar in size to the preceding, subparallel and convex, deep black, wholly polished (♂), with alutaceous elytra (♀); under surface black, the entire legs and tarsi piceous-black; head moderate, four-sevenths as wide as the prothorax, the eyes and antennæ nearly as in the preceding; prothorax subsimilar but longer, only a third wider than long to somewhat less, the surface, sides and foveæ almost similar, but with the basal angles less broadly rounded; elytra nearly similar but rather more evidently wider than the prothorax, the parallel sides slightly more arcuate; anterior male tarsi moderately dilated, dark brown in color. Length (♂♀) 7.7 mm.; width 3.0–3.1 mm. Colorado (Akron),—Shantz.

Closely allied to *antiphon*, but recognizable by the less narrow or parallel outline, more arcuate sides of the elytra and much less transverse prothorax.

The two following species may be placed near *mobilis*, but have a relatively larger head:

Harpalus instructus n. sp.—Subparallel, moderately convex, deep black and strongly shining, the elytra alutaceous in the female; under surface and legs black, the tarsi piceous; head rather large, fully three-fifths as wide as the prothorax, subequal in the sexes, the eyes well developed and moderately prominent, the apical impressions small, deep and punctiform; antennæ testaceous, one-half longer than the prothorax, the latter a third to three-sevenths wider than long, the parallel sides feebly and subevenly arcuate, the basal angles much less broadly rounded than the apical; side margins very finely reflexed, gradually subdeplanately broader behind; surface nearly smooth, the inner basal impression broad, shallowly concave and finely, rather closely punctulate; elytra one-half longer than wide—three-sevenths (♂)—slightly wider than the prothorax, with the parallel sides evidently arcuate; striæ distinct, evenly incised, more impressed distad; intervals nearly flat in both sexes; anterior male tarsi broadly, the second distinctly less, dilated. Length (♂♀) 10.0–10.4 mm.; width 4.0–4.1 mm. Canada (Edmonton, Alberta). Three specimens.

The prothorax, as well as the elytra, is distinctly shorter in the male than in the female. The head is very much larger than in *mobilis*, and the basal thoracic impressions are of an entirely different kind; in *mobilis* they are subobsolete and narrowly linear.

Harpalus assensus n. sp.—Parallel, rather convex, shining, with faintly alutaceous elytra (♂), the lateral and basal thoracic edges diaphanously rufous; under surface black, the epipleura, middle of the metasternum and entire legs

testaceous; head relatively large, two-thirds as wide as the prothorax, with well-developed and prominent eyes, the apical impressions minute; antennæ pale testaceous, one-half longer than the prothorax, the latter three-sevenths wider than long, the parallel sides distinctly and subevenly arcuate; basal angles very broadly rounded, much more so than the apical; surface smooth, impunctate, the inner basal impression large, broadly and feebly concave and finely, closely punctulate or rugulose; elytra rather more than one-half longer than wide, not evidently wider than the prothorax, gradually rounding behind, the parallel sides feebly arcuate; striæ very moderate, incised, the intervals virtually flat; anterior and middle male tarsi distinctly but moderately dilated. Length (♂) 9.8 mm.; width 3.3 mm. Colorado (Boulder Co.),—Cockerell. One specimen.

A very distinct species, notable among other features in the very broadly rounded basal thoracic angles.

Harpalus maxwelli n. sp.—Small, parallel, convex, pale testaceous throughout and polished; head nearly two-thirds as wide as the prothorax, the eyes moderate but very prominent; anterior strioles minute and feeble, linear; antennæ not quite attaining the thoracic base, pale testaceous, only moderately slender, compressed; palpi and mandibles testaceous, the latter black distally; prothorax four-sevenths wider than long, the parallel sides evenly and not strongly arcuate, the angles slightly obtuse, rather widely rounded; apex slightly narrower than the base, feebly sinuate, the angles rounded, not much produced; surface smooth, with some feeble sparse rugulæ, the median stria extremely fine and imperfect; anterior impression very feeble; basal region rugulose throughout, the impression near outer fourth very shallow, loosely punctate; side margins rather narrowly reflexed, lost in a feebly convex surface at base; elytra three-sevenths longer than wide, parallel, at the middle of the feebly arcuate sides barely visibly wider than the prothorax, rapidly obtusely rounded at apex; striæ strong, impressed, smooth, the scutellar rather long, free; intervals convex, the third with a small puncture near the second stria at three-fourths; anterior male tarsi moderately dilated. Length (♂) 7.8 mm.; width 2.75 mm. New Mexico (Maxwell),—Wade. A single specimen.

The integuments in the type, though very pallid, exhibit no distortion on drying and therefore are probably almost normal, though the color differs so greatly from the prevailing dark tints of most of the allied species; it may be placed near *desertus* Lec.

Of *electus* Csy., I have received recently two males from Mr. Carr; they differ from the female type only in the slightly more polished elytra; the outline of this species is peculiar.

Harpalus blanditus n. sp.—Body small, moderately convex, black to piceous, shining (♂), with rufescent thoracic margins, the elytra (♀) alutaceous; under surface black, the margins piceous, the legs pale rufous; head well developed, with prominent eyes, two-thirds as wide as the prothorax, relatively a little larger in the female, the anterior impressions small, deep, circular and punctiform; antennæ testaceous, extending nearly to the thoracic base, somewhat thicker in the female; prothorax nearly one-half wider than the median length, the apex deeply sinuate; sides distinctly and subevenly arcuate; edges finely reflexed; basal and apical angles subequally and not widely rounded; surface nearly smooth, impunctate, the stria biabbreviated; inner basal fovea broadly impressed, closely punctate, thence feebly and sparsely so to the sides; elytra not three-sevenths

longer than wide, fully a fifth wider than the prothorax, with parallel, slightly arcuate sides; striæ rather coarse and moderately impressed, with slightly convex intervals; first two male tarsi rather widely dilated. Length (♂ ♀) 7.8–8.0 mm.; width 3.0–3.1 mm. British Columbia (Terrace),—Mrs. Hippisley.

May be placed near *lividulus*, but narrower and more ventricose. I am rather doubtful as to whether the female specimen associated with the male type really belongs there; it is stouter and the latero-basal punctures of the pronotum are stronger, more widely diffused and much more conspicuous; the basal thoracic angles, also, are more broadly rounded.

Harpalus nivalis n. sp.—Oblong, subparallel, black and shining; under surface black, the side margins and legs testaceous; head well developed, two-thirds as wide as the prothorax, with prominent eyes and moderate testaceous antennæ; prothorax fully two-fifths wider than long, widest somewhat beyond the middle, with moderately arcuate sides, becoming straighter behind the middle, the angles obtuse and rounded; surface nearly as in the preceding, except that the basal impressions are much more broadly concave and densely and clearly punctate, the convex surface thence to the sides with minute, sparse and feeble punctulation; elytra almost one-half longer than wide, only very slightly wider than the prothorax, the parallel sides very feebly arcuate; striæ rather coarse, especially on the declivity, where they are also impressed; intervals nearly flat; first and second anterior male tarsi equally and rather strongly dilated. Length (♂) 8.4 mm.; width 3.2 mm. Canada (Saskatchewan). One example.

Narrower than *lascivus* Csy., and larger than *blanditus*, near both of which it may be placed.

A species in my collection seems to satisfy Kirby's description of *basilaris* very well; the antennæ are blackish, the two basal joints abruptly testaceous. My five specimens were taken at Ottawa and Marquette, Michigan; it was described from Ontario by Kirby.

The following three species can come immediately after *lustrans* Csy. (*lucidus* || Lec.):

Harpalus dulciculus n. sp.—Small in size, subparallel, rather strongly convex, polished in both sexes, the elytra faintly alutaceous in the female, black or faintly piceous, the thoracic margins rufescent, the elytral suture frequently very slightly piceo-rufous; legs rufous; head three-fifths as wide as the prothorax, with prominent eyes; antennæ slender, testaceous, one-half longer than the prothorax, the latter very nearly one-half wider than long, widest somewhat beyond the middle, the sides moderately arcuate, straighter posteriad, the angles rather widely rounded; margins well reflexed and punctulate as usual, gradually more broadly behind; surface nearly smooth, the stria very fine, the inner basal impression linear but shallow and broadly impressed, punctulate, the punctures very fine and sparse thence to the sides; apex shallowly sinuate, with rounded angles; elytra nearly one-half longer than wide, shorter (♀), only very slightly wider than the prothorax, with parallel and slightly arcuate sides; striæ moderate, incised; intervals nearly flat; first two male tarsi only very moderately dilated. Length (♂ ♀) 7.3–7.8 mm.; width 2.75–3.1 mm. Colorado (Akron),—Shantz. Four specimens.

The single female is rather narrower than any one of the three males. In the following female type the form is shorter and broader, with more impressed striæ and convex intervals:

Harpalus captiosus n. sp.—Similar in coloration, except that the femora are blackish-piceous; lustre polished, the elytra scarcely less so in the female; head larger, with prominent eyes, almost two-thirds as wide as the prothorax, the pale testaceous antennæ a little longer; prothorax somewhat larger and more convex, otherwise similar, except that the sides are parallel and almost evenly, moderately arcuate, the surface near the rounded basal angles with some coarser punctures; elytra much shorter and broader, barely two-fifths longer than wide, a fifth or sixth wider than the prothorax, the sides feebly arcuate; striæ coarser, incised, the intervals much more convex. Length (♀) 7.5 mm.; width 3.35 mm. Colorado (Akron),—Shantz. One specimen.

The female type represents a species somewhat allied to *dulciculus* but much broader, with larger head and coarser striæ, having much more convex intervals.

Harpalus metuens n. sp.—Oblong, parallel, deep black, highly polished throughout in the female; legs rufo-piceous; head well developed, nearly two-thirds as wide as the prothorax, with moderate but rather prominent eyes, the apical foveoles minute but linear; antennæ testaceous, less than one-half longer than the prothorax, which is only two-fifths wider than long, widest somewhat beyond the middle, the very feebly arcuate sides straight posteriad, the angles moderately rounded; margins narrowly reflexed, somewhat diaphanous; surface nearly smooth, the stria fine; latero-basal region sparsely, irregularly punctate, the fovea sublinear but broad, shallow and very unevenly punctate; elytra only two-fifths longer than wide, a fifth or sixth wider than the prothorax, with feebly arcuate sides and very obtusely rounded apex; striæ strong; intervals feebly though evidently convex. Length (♀) 7.7–8.0 mm.; width 3.15–3.25 mm. Arizona. Also two specimens from Dodge City and Fort Scott, Kansas, which seem to be conspecific.

In comparing the female type of this species with the female of *lustrans*, it is seen to be decidedly larger in size and of broader form; it is, however, closely allied. In my former work several species were confounded; *lustrans* is specifically Arizonian. A typical female is 7.2 by 2.75 mm. in dimensions.

The following seven species, having the head notably small, are allied more or less closely to *oblongus* and may follow that species in the list; the first four are allied also to *basilaris:*

Harpalus furviculus n. sp.—Oblong, convex, polished, black, the elytra alutaceous in the female; under surface, legs and tarsi throughout—even the anterior (♂)—deep black; head slightly more than half as wide as the prothorax, four-sevenths (♀), with moderately prominent eyes and small punctiform apical impressions; antennæ slender, as long as the head and prothorax, blackish, the two basal joints pale testaceous; prothorax one-half wider than long, the sides rounding and converging anteriorly, straight and just visibly oblique in basal half, the angles right, only very narrowly rounded or blunt at tip; surface smooth,

the stria very fine; latero-basal surface rugose, not definitely punctate, shining, the fovea narrow and longitudinal; elytra one-half longer than wide, three-sevenths (♀), evidently wider than the prothorax, more notably (♀), with feebly arcuate sides and rather gradually rounded apex; striæ strong, coarser and impressed distad; intervals feebly convex, flat (♀); first two tarsi (♂) very moderately dilated. Length (♂ ♀) 7.6–9.2 mm.; width 3.0–3.6 mm. Washington State (Wawawai and Govan), also British Columbia. Six specimens.

It will be noted that the antennæ are colored as in *basilaris* and several others of this section, but this species is narrower and less ventricose than the one I have selected to represent *basilaris*.

Harpalus stocktonensis n. sp.—Shorter and stouter than the preceding, convex, slightly ventricose, the color and lustre similar throughout; head (♀) relatively not quite so large, but very little over half as wide as the prothorax, the eyes moderate and still somewhat less prominent; antennæ similar; prothorax similar in form, smooth, with fine stria, but with the latero-basal surface more finely and feebly rugulose, the fovea larger, not so linear and broadly, feebly impressed; elytra nearly as in the female of *furviculus*, but broader, about a fourth wider than the prothorax; striæ distinctly finer, the intervals flat. Length (♀) 8.7 mm.; width 3.85 mm. Utah (Stockton). One specimen.

Evidently closely allied to *furviculus*, but notably broader and differing also in the character of the basal thoracic impressions, as well as in the much finer striation.

Harpalus ventricosus n. sp.—Stout, ventricose, shining, black, the elytra opaculate in the female; legs obscure rufous throughout; head nearly four-sevenths as wide as the prothorax, rather short, the eyes very moderately prominent, the apical impressions small, deep and punctiform; antennæ as in the two preceding, black, the first two joints pale testaceous, the third piceous; prothorax four-sevenths wider than long, with outline as in the two preceding, and with similar right angles only narrowly rounded at tip; surface nearly smooth, the transverse impressions visible medially; latero-basal region finely, sparsely rugulose, not punctate, the inner impression linear, broadly, rather deeply impressed and distinct; elytra oblong-oval, with rather strongly arcuate sides, only two-fifths longer than wide and fully a third wider than the prothorax; striæ fine, incised, coarse and impressed distad; intervals flat. Length (♀) 8.7 mm.; width 3.8 mm. British Columbia (Spencer). One specimen.

This very distinct species belongs to the *basilaris* section and may be allied to *obesulus* Lec., from Oregon, but in *obesulus* the prothorax is more transverse, only obsoletely impressed at base, and the elytra are but little wider than the prothorax in the female type; no such unusual difference in thoracic and elytral width, as is here apparent, could give rise to the language of LeConte, "elytra a little wider than the prothorax."

Harpalus durescans n. sp.—Oblong, only feebly ventricose, convex, polished, deep black, the elytra (♀) only very faintly alutaceous; entire legs and coxæ deep black; head (♀) slightly larger than in the same sex of *basilaris*, fully four-sevenths as wide as the prothorax, rather longer than wide, the eyes prominent;

antennæ nearly as in *basilaris*, but not as long as the head and prothorax, the latter only three-sevenths wider than long, the sides parallel and straight, strongly rounding beyond the middle; hind angles right, scarcely at all blunt at tip, the surface as in *basilaris*, the inner impression coarsely linear and deeper; elytra nearly one-half longer than wide, only a sixth wider than the prothorax, the sides feebly arcuate; striæ moderate, only moderately coarse distad; intervals nearly flat. Length (♀) 8.0 mm.; width 3.4 mm. Quebec (Ft. Coulonge).

Allied to *basilaris* but more elongate, with much less abbreviated prothorax, larger head and entirely black legs and coxæ; the latter in *basilaris* are always yellow.

Harpalus intactus n. sp.—Oblong, slightly ventricose, moderately convex, deep black and shining; legs pale rufous, the femora black, pallescent basally; head four-sevenths as wide as the prothorax, with well-developed prominent eyes and perforate apical impressions; antennæ slender, testaceous, as long as the head and prothorax, the latter only about a third wider than long, the sides distinctly arcuate, becoming rather rapidly straight and oblique in basal half, the angles more than right, but with their tips only very narrowly rounded; surface sparsely, finely punctulate and rugulose at base, the inner fovea linear, rather narrow and deep; elytra nearly one-half longer than wide, between a fourth and fifth wider than the prothorax, the striæ moderate, incised, coarser and impressed on the declivity; intervals very feebly convex; first male tarsi rather strongly dilated, the second evidently less so. Length (♂) 8.5 mm.; width 3.35 mm. Michigan (Marquette),—Sherman. One specimen.

In some respects this species recalls the *basilaris* section, as in the distinct basal thoracic angles, but the straight sides of the latter—which is more elongate—are much more oblique, and the coloration of the legs and antennæ is very different.

Harpalus modulatus n. sp.—Oblong-suboval, rather convex, very moderately shining, the elytra sericeously opaque (♀); under surface black, the legs pale rufous; head larger, three-fifths as wide as the prothorax; eyes prominent, the apical foveoles minute; antennæ slender, testaceous, less than one-half longer than the prothorax, which is rather less than one-half wider than long, the sides subparallel and feebly arcuate, gradually rounding anteriorly, all four angles rather broadly rounded; impressions diffuse, faintly visible medially; basal region smooth and wholly impunctate, the inner fovea linear but feebly and shallowly impressed; elytra only two-fifths longer than wide, between a fifth and sixth wider than the prothorax, obtusely rounded behind, the sides arcuate; striæ fine, not much coarser distally; intervals perfectly flat. Length (♀) 7.25 mm.; width 3.1 mm. Quebec (Ft. Coulonge). One specimen.

This species is rather isolated, being allied only to the next, which is larger, more elongate and more parallel.

Harpalus leviceps n. sp.—Subparallel, convex, black, rather shining, the elytra opaculate (♀); under surface black, the sides and the legs dusky rufous; head fully four-sevenths as wide as the prothorax, with moderate but prominent eyes; antennæ slender, testaceous, scarcely one-half longer than the prothorax, the latter parallel, with evenly and distinctly arcuate sides, only about two-fifths wider than long, all the angles well rounded; apex distinctly sinuate as in the

preceding; surface smooth, with the usual few faint rugulæ, but not at all impressed; inner fovea linear, feebly impressed, with vestiges of feeble punctures; elytra three-sevenths longer than wide, with broadly arcuate sides, barely perceptibly wider than the prothorax, more gradually and less obtusely rounded behind than in *modulatus;* striæ not so fine and with less flattened intervals. Length (♀) 7.6–8.0 mm.; width 3.0–3.15 mm. Michigan (Marquette),—Sherman. Five specimens, all females, the male not at hand.

Differs from *modulatus* in its more elongate form, less transverse prothorax, more gradually rounding elytral apex, the elytra not distinctly wider than the prothorax. Neither of these species has accessory abdominal setæ.

Of *appositus*, described from Siskiyou Co., Calif., I now have an identically similar specimen from Wawawai, Washington State.

The following species may be placed just after *renoicus:*

Harpalus subenormis n. sp.—Elongate-suboval, unusually convex, polished, deep black throughout, the legs black; head moderately small, three-fifths as wide as the prothorax, the moderate eyes rather strongly convex; anterior strioles short and punctiform, deep; mandibles and palpi black; antennæ a little longer than the thoracic width, piceous-black, obscure testaceous basally, compressed, the medial joints fully one-half longer than wide on the flattened sides; prothorax barely more than a third wider than long, the sides broadly arcuate and converging apically, nearly straight and parallel basally, the angle right, with narrowly rounded apex and no puncture; surface convex, smooth, very finely subrugulose basally, but not punctate, the narrow linear impression at outer fifth almost obsolete; median line very fine and feeble, not extending beyond two-thirds; elytra nearly one-half longer than wide, at the middle of the arcuate parallel sides about a fifth wider than the prothorax; posterior sinus short and feeble; striæ moderate, rather conspicuous, smooth, coarser at apex; intervals just visibly convex, the third with a small puncture at four-fifths. Length (♀) 8.2 mm.; width 3.35 mm. Utah (Callao),—Spalding.

A distinct species, somewhat allied to *renoicus*, but with the prothorax more narrowed apically and less transverse, the body narrower and still more convex and the head evidently though but slightly larger.

The following species has been received recently and is sufficiently distinct as a species to be described:

Harpalus provensis n. sp.—Oblong, rather broad, black, the tibiæ and tarsi rufo-piceous; head only four-sevenths as wide as the prothorax, rather wider than long, the anterior impressions small and punctiform; eyes but moderately prominent; antennæ obscure rufous, thick, slightly attenuate basally and apically, the third joint distinctly shorter than the fourth; prothorax but little over a third wider than long, the parallel sides rather feebly arcuate, more rounding apically; base transverse, much wider than the moderately sinuate apex; all angles well rounded; fine incised basal margin subobsolete medially; side margins very narrowly reflexed and feebly pallescent; surface nearly smooth, only very faintly impressed at any part, the incised median line fine, abbreviated apically and more briefly at base; scutellum triangular, much wider than long; elytra

barely two-fifths longer than wide, oblong, with somewhat arcuate sides, slightly wider than the prothorax; striæ fine, smooth, feebly impressed, the scutellar fine, proceeding from a distinct puncture; tarsi slender. Length (♀) 10.4 mm.; width 4.1 mm. Utah (North Fork, Provo Cañon),—Spalding.

Allied somewhat to *uteanus* but, comparing the females, having an evidently smaller head, less prominent eyes and more elongate prothorax, with more broadly rounded angles; the upper surface is feebly shining, with opaque elytra.

A specimen of *blanditus* Csy., was taken by Prof. Piper at Priest Lake, Idaho.

The three following species are allied more or less closely to *spadiceus* Dej.:

Harpalus beatulus n. sp.—Parallel, convex, black, polished; under surface black, with paler margins, the legs yellowish-red; head large, nearly three-fourths as wide as the prothorax, the eyes well developed, moderately prominent; antennæ testaceous, compressed, scarcely one-half longer than the prothorax, the latter long, only between a fourth and third wider than long, the sides distinctly but broadly arcuate, becoming straight—then feebly sinuate—behind, the angles right and rather sharply defined; surface smooth, the stria deeply impressed, entire; latero-basal region with fine sparse punctures, stronger and denser in the inner fovea, the latter linear but broadly, deeply impressed; side margins very finely reflexed throughout, feebly rufescent; elytra two-fifths longer than wide, subequal in width to the prothorax and not quite twice as long, rapidly rounding at apex, with feebly arcuate sides; striæ notably coarse and deep, not stronger distad; intervals broadly but distinctly convex; first male tarsi very moderately dilated, the second feebly so. Length (♂) 8.6 mm.; width 3.2 mm. Michigan (Marquette),—Sherman. One example.

Differs from *spadiceus* in its shorter antennæ and much less oblique posterior sides of the prothorax.

Harpalus indigens n. sp.—Much smaller, parallel, convex and shining, the under surface similar, the legs pale testaceous; head nearly as in the preceding; antennæ slender, testaceous, not quite as long as the head and prothorax, the latter shorter, about two-fifths wider than long, widest well beyond the middle, the sides distinctly rounded, feebly oblique and perfectly straight in basal half, the margins finely reflexed and slightly diaphanous, the basal angles right and well defined, not more than very narrowly blunt at tip; surface with vestiges of broad and diffuse transverse impressions medially, the latero-basal region with minute feeble sparse punctures, the fovea long, linear, narrow and rather deep; elytra about as wide as the prothorax, parallel, with feebly arcuate sides and obtuse apex, nearly one-half longer than wide; striæ strong and deep; intervals feebly convex; first male tarsi rather feebly dilated, the second a little less so. Length (♂) 7.2 mm.; width 2.6 mm. Maine (Monmouth),—Frost. One specimen.

Allied to the preceding and differing from *spadiceus* in its much less oblique sides of the prothorax posteriorly; it is very much smaller than either.

Harpalus electus n. sp.—Broader, parallel, rather strongly convex, shining, black, the under surface black, with the margins dark rufous, the legs rufous; head relatively much smaller than in the preceding two or *spadiceus*, only four-sevenths as wide as the prothorax, with rather prominent eyes; entire apical parts and mandibles rufescent; antennæ slender, testaceous, barely one-half longer than the prothorax, the latter large, only between a fourth and third wider than long, widest well beyond the middle, the sides distinctly arcuate, becoming straight to very feebly sinuate in basal half; angles more than right and somewhat bluntly rounded; surface scarcely at all impressed, but with fine longitudinal rugulæ at apex and base, the latero-basal region impunctate, smooth, the fovea linear, but feebly impressed and shallow; stria extremely fine; elytra oblong, only two-fifths longer than wide, barely more than twice as long as the prothorax, equal in width to the latter, with feebly arcuate sides and rapidly obtusely rounded apex; striæ moderately strong, gradually a little coarser posteriad; intervals broadly and feebly convex, barely at all alutaceous in the female. Length (♀) 9.0 mm.; width 3.6 mm. Canada (Edmonton, Alberta). One specimen.

A remarkable species, of broad oblong form and wholly unlike any other; it may be placed in the *spadiceus* section, however. There are apparently no accessory setæ in any of the *spadiceus* section.

The small species in the neighborhood of *herbivagus* Say, are not very well understood; *herbivagus* is the largest of the section, and my large series shows that it is distributed from Maine and North Carolina westward to Colorado. *Pluriticus* Kirby, is smaller and shorter, black or blackish, with pale reflexed margins, pale brown elytra and yellowish legs; it extends from Maine to Edmonton, Alberta. *Lividulus* Csy., has been referred to above, it is slightly larger and more elongate than *pluriticus*, with rather smaller head and is black, with pale legs, the elytra sometimes feebly picescent; it occurs from Virginia to Lake Superior and New Mexico. *Blanditus* (ante), from the Pacific coast of British Columbia, is smaller and more ventricose, and *nivalis* (ante) more elongate, with somewhat larger head; it occurs in Saskatchewan. Finally, of this more immediate section, we have *foveicollis* Lec., which seems to by confined to the extreme eastern provinces and is still represented in my collection by a single example from New Brunswick; it is relatively still narrower than *nivalis* and has a less transverse prothorax; it differs from the others also in having the sides of the prothorax in basal half more oblique and in having the deep foveiform impression near each side of the thoracic base demarcated externally by a narrow smooth longitudinal ridge at some distance from the side margin; it is a remarkably distinct species and apparently rare.

Euharpalops n. gen.

This genus is related rather closely to *Harpalus*, but is more ventricose in outline and differs in the anterior male tarsi, which have beneath on each joint an acutely, anteriorly angulate chevron, which has none of the transverse strigilation seen in normal *Harpalus*, but is perfectly flat, uniform in texture and only very briefly pubescent; the type is as follows:

Euharpalops wadei n. sp.—Oblong, moderately convex, polished, the female elytra dull; color obscure rufous, the elytra black, less so in the female; legs piceous; head rather large, nearly two-thirds as wide as the prothorax, the eyes moderate, not very strongly convex; anterior strioles short, coarse, lying within feeble concavities; mandibles strong; antennæ obscure testaceous, not extending quite to the thoracic base, only feebly compressed, the third joint slightly longer than the fourth, the second more than twice as long as wide; prothorax about four-sevenths wider than long, the sides feebly arcuate, rather straighter in about basal half, slightly widest a little beyond the middle; base rectilinearly transverse, with slightly obtuse but scarcely blunt angles, a fourth wider than the distinctly sinuate apex, the latter having short and moderately rounded angles; surface smooth, with very feeble ruguliform lines, closely and rather finely punctato-rugose latero-basally, the basal impression, near outer fourth, very shallow; median line very fine, abbreviated; anterior transverse impression obsolete; elytra oblong, with parallel and broadly arcuate sides and gradually broadly rounded apex, the latter having just visible sinuosity, three-sevenths (♀) to four-sevenths (♂) longer than wide, two-fifths (♂) to nearly one-half (♀) wider than the prothorax; striæ smooth, strong (♂), finer and feebler (♀); intervals perfectly flat in both sexes, the third having a puncture near the second stria, at a little beyond two-thirds; scutellar stria long, free or not; first four anterior male tarsal joints well dilated. Length (♂ ♀) 14.5 mm.; width 6.0–6.2 mm. Oregon (Moro),—J. S. Wade.

This species is obviously very close to *Harpalus*, and may be regarded as only subgeneric, but the under surface of the anterior male tarsi is notably different. The abdomen, just behind each coxa, is finely and closely punctured in a limited area having short fine inconspicuous pubescence.

Pteropalus Csy.

In *vulpeculus* Say, the head and prothorax are distinctly smaller, when compared with the width of the elytra, than in the other three described species. The following is a subparallel species, allied to *dichrous* Dej., but smaller and notably narrower:

Pteropalus versutulus n. sp.—Polished, testaceous, the elytra black, with strong iridescence; head about three-fourths as wide as the prothorax, the eyes well developed but only moderately prominent; apical strioles extremely small and shallow; antennæ slender, testaceous, slightly compressed, the medial joints nearly three times as long as wide on the flattened sides; mandibles strongly arcuate distally; prothorax two-fifths wider than long, slightly more (♀), the

parallel sides subevenly and distinctly arcuate; basal angles obtuse, evidently rounded; surface smooth, shallowly bi-impressed basally at each side, the anterior transverse impression distinct and angulate; median line fine; sides basally feebly subdeplanate; elytra two-thirds (♂) to one-half (♀) longer than wide, at the middle of the feebly arcuate sides only a sixth or seventh wider than the prothorax; apex gradually and unevenly rounded, the sinus extremely feeble; striæ strong, deep, smooth, the second with a distinct puncture at three-fifths; intervals rather strongly (♂) or feebly (♀) convex, not differing sexually in the polished lustre; anterior male tarsi moderately dilated, the intermediate undilated, slender. Length (♂ ♀) 9.0–9.8 mm.; width 3.25–3.6 mm. North Carolina (Southern Pines),—Manee.

Differs from *dichrous* in its smaller size, narrower outline, more acute elytral apices and more nearly obsolete sinus. The female seems to be a little smaller and more abbreviated than the male.

Hemisopalus Csy.

This and the preceding group are now considered as subgenera, but for the present purposes, at least, they and *Celiamorphus* may be regarded as genera.

Hemisopalus trepidus n. sp.—Elongate-suboval, notably convex, polished, black, the under surface piceous, the legs paler, rufous; upper surface greenish-metallic; head rather large, fully three-fourths as wide as the prothorax; eyes well developed but not very prominent; apical strioles subobsolete; antennæ somewhat slender, testaceous, the medial joints between two and three times as long as wide; prothorax nearly one-half wider than long, the parallel sides evenly and distinctly arcuate, the finely reflexed edges piceous; basal angles obtuse and rounded; surface smooth, the anterior and posterior impressions evident but feeble; base with a large shallow smooth impression at each side; elytra three-fifths longer than wide, gradually rounding behind, barely at all wider than the prothorax, the parallel sides not quite straight; striæ very moderate; serial punctures of 2–5–7 very small; scutellar stria very short, nearly obsolete; intervals flat. Length (♀) 8.15 mm.; width 2.9 mm. Florida (Cape Sable),—W. S. Blatchley. A single specimen.

At first I regarded this as an extreme form of *gagatinus* Dej., but it seems different on more careful study, being larger, with flatter strial intervals, finer and feebler strial series and more nearly obsolete scutellar stria.

Celiamorphus Csy.

The following species is broader and more opaque than either *fossulatus* or *ellipticus:*

Celiamorphus municeps n. sp.—Oblong-suboval, rather notably convex, black and opaculate, especially the elytra; under surface and legs piceo-rufous; head half as wide as the prothorax, the eyes moderate, not notably prominent, the apical strioles obsolete; antennæ slender, piceous, the medial joints more than twice as long as wide; prothorax slightly less than one-half wider than long,

the sides feebly converging and broadly arcuate anteriad, straighter and parallel basally; basal angles nearly right and well defined; surface somewhat shining, broadly opaculate at base toward the sides and feebly, longitudinally impressed near outer fourth; surface smooth, the impressions obsolete, the median line fine; scutellum much more shining than the elytra, which are three-sevenths longer than wide, with parallel and almost straight sides and broadly obtuse apex, equal in width to the prothorax; striæ rather fine; punctures of 2–5–7 very small and feeble, sometimes more distinct on 2; scutellar stria very short and fine, proceeding from a rather large post-basal puncture. Length 5.4 mm.; width 2.3 mm. North Carolina (Southern Pines),—Manee. Two specimens.

Differs very much from *fossulatus* in its opaque surface and fine tri-serial punctures, and, from *ellipticus*, in its stouter form, but less abbreviated prothorax and less shining surface; it is smaller and much shorter than *opaculus* and with smaller head.

Celiamorphus subtropicus n. sp.—Elongate, parallel, piceous, feebly shining, the elytra opaque, at least in the female, the legs rufous; head well developed, three-fifths as wide as the prothorax, the eyes large, moderately prominent; antennæ very slender, fuscous, a little paler basally; prothorax not quite one-half wider than long, the sides broadly, feebly arcuate, a little more so and evidently converging beyond the middle, the angles slightly more than right, rather distinct; surface almost smooth, slightly uneven, not explanate at the sides; elytra three-sevenths longer than wide, as wide as the prothorax, the sides parallel and nearly straight, the apex obtusely rounded; apical sinuses short, evident; striæ fine, the three series of punctures distinct, the scutellar stria moderate, oblique; intervals flat. Length (♂ ♀) 5.2–5.9 mm.; width 2.2–2.4 mm. Texas and northern Mexico. Five specimens.

Differs from *ellipticus* in its more elongate-parallel outline and piceous coloration; the entire upper surface is shining but not highly polished in the male.

Celiamorphus nanulus n. sp.—Small, rather narrow, convex, deep black and polished throughout in the male, the legs dark piceous; head very moderate, the eyes not very prominent; antennæ very slender, fuscous, gradually testaceous basally; prothorax two-fifths wider than long, the sides broadly arcuate, converging anteriorly, less arcuate and parallel basally, the basal angles right and only slightly blunt; surface nearly smooth, steep and abruptly horizontally deplanate at the sides, more broadly behind, but not attaining the base; median line only evident centrally; elytra three-sevenths longer than wide, as wide as the prothorax, parallel and nearly straight at the sides, broadly subcircularly rounded at apex, the sinuses extremely shallow; striæ smooth, not very fine, distinctly impressed, coarser and exarate on the apical declivity; punctures of the three series rather small but impressed and distinct; scutellar stria very short and extremely fine, oblique, the puncture coarse and deep. Length (♂) 4.4–4.6 mm.; width 1.8 mm. North Carolina (Southern Pines),—Manee. Two specimens.

Easily distinguishable from the male of *ellipticus* by its smaller size, much narrower outline, smaller head and especially by the stronger, impressed and much more conspicuous elytral striæ.

This species is the fifth described from the regions about Southern Pines, a rather singular fact, although a thorough search of other parts of the southern States might reveal many species still undescribed. There is reason to believe that the species described from Southern Pines are all truly valid. I regret being unable to examine the original types of *ellipticus*, *pulicarius* and *granarius* Dej., for it is more than possible that they are valid species.

Discoderus Lec.

This relative of *Selenophorus* is evidently very widely distributed and is represented by numerous species, all of which can be recognized at once by a peculiar habitus; they are elongate, parallel-suboval and of very marked convexity. The following is allied closely to *impotens* Lec., but is not so large, narrower in form and with much shorter scutellar stria:

Discoderus papagonis n. sp.—Polished black, with feeble subæneo-metallic lustre, the under surface blackish-piceous, the legs piceous; head well developed, with prominent eyes, fully two-thirds as wide as the prothorax, the punctiform anterior strioles rather coarse and deep; antennæ piceous, slender and only feebly subcompressed, the medial joints almost three times as long as wide; prothorax rather short, almost one-half wider than long, the parallel sides evenly and distinctly arcuate, the basal angles broadly rounded; surface smooth, feebly impressed at outer fourth near basal fifth, the sides narrowly subdeplanate basally; anterior transverse impression evident; elytra a little more than one-half longer than wide, parallel, with feebly arcuate sides, only very slightly wider than the prothorax; striæ smooth, very moderate, coarser distally, 2-5-7 with moderate punctures, the intervals very feebly convex. Length (♂ ♀) 7.1–7.3 mm.; width 2.7–2.8 mm. Arizona (locality unrecorded) and New Mexico (Alamogordo).

The prothorax is less transverse than in *impotens* and with less strongly arcuate sides, and the hind tarsi are shorter and more slender—among other differences. The Alamogordo specimen is a female, but does not differ materially from the male, except in its nearly straight middle tibiæ.

The following may be placed in the same section as *impotens*, but has a larger and less abbreviated prothorax:

Discoderus texanus n. sp.—Oblong, convex, polished, the coloration nearly as in the preceding, the legs more nearly black, the thoracic marginal bead similarly obscurely testaceous but thicker; head nearly similar and rather well developed, about three-fifths as wide as the prothorax; antennæ dark testaceous, extending to the thoracic base, slightly compressed, the medial joints two and one-half times as long as wide on the flattened side; prothorax large, about a third wider than long, the parallel sides evenly and moderately arcuate, the basal angles broadly rounded; surface smooth, the transverse impressions nearly obsolete, rather abruptly and broadly deplanate in less than basal third and thence very narrowly concave along the sides; basal impression at outer fourth narrow,

linear and very feeble; elytra barely one-half longer than wide, parallel, barely perceptibly wider than the prothorax, the sides at apex oblique but with the sinus scarcely traceable; striæ smooth, moderate, somewhat coarse apically, 2–5–7 with small but very distinct punctures, the scutellar stria long; intervals feebly convex; anterior male tarsi as usual, undilated and nude beneath. Length (♂ ♀) 8.5–8.7 mm.; width 3.25–3.4 mm. Texas (Dallas). Two examples.

Notably larger than *impotens* and with larger and much less abbreviated prothorax, the surface lustre less æneous. The deplanate thoracic surface near the hind angles is remotely and very obsoletely punctulate.

Discoderus dallasensis n. sp.—Oblong, convex, polished, black, with subæneous lustre above, blackish beneath, with piceo-rufous legs; head well developed, fully three-fifths as wide as the prothorax, with rather prominent eyes and two coarse deep apical punctures; antennæ slender, testaceous, only very feebly compressed, the medial joints not quite three times as long as wide; prothorax a little less than one-half wider than long, the parallel sides evenly and moderately arcuate, with obscure testaceous bead, the hind angles broadly rounded; surface smooth, with shallow but obvious transverse impressions, subdeplanate along the broad basal angles, the impression at outer fourth diffuse and subobsolete; a few punctures are usually visible along the sides basally; elytra one-half longer than wide to less, parallel, but very slightly wider than the prothorax, the smooth striæ rather strong, impressed, coarsely exarate apically, the punctures of the three series feeble or inconspicuous; scutellar stria moderate; intervals slightly convex. Length (♂ ♀) 7.4–8.7 mm.; width 2.8–3.35 mm. Texas (Dallas and Amarillo). Eight specimens.

The species in this part of the genus are rather closely allied among themselves. In *texanus* the prothorax is notably large; in *æqualis* and *symbolicus* the elytra are more evidently elongate, and, in the former, the head is notably large; in *dallasensis* the elytra and prothorax are both more abbreviated, with the head not quite so developed as in *æqualis*, but more so than in *texanus*.

The following species is somewhat closely allied to the smaller and narrower *congruens*, but differs in its larger head and longer mandibles:

Discoderus peregrinus n. sp.—Rather narrow, parallel and strongly convex, polished, not metallic, piceous-black, the under surface and legs obscure testaceous; head nearly two-thirds as wide as the prothorax, somewhat longer than wide, the mandibles longer than the space from the anterior margin of the eyes to the base, the eyes rather prominent; two apical punctures deep; antennæ and labrum testaceous, the former slender, barely at all compressed; prothorax two-fifths wider than long, the parallel sides evenly and distinctly arcuate, the basal angles broadly rounded; surface smooth, very convex, rapidly declivous at the sides, narrowly deplanate, with a few punctures along the basal angles, having some transverse rugæ medially, the impression at lateral fourth of the base feeble, the transverse impressions subobsolete; elytra fully one-half longer than wide, barely visibly wider than the prothorax; striæ smooth, very deeply impressed, subcontiguous, coarser and exarate on the declivity, the scutellar stria

rather short, disintegrated; punctures of the three series small and feeble; intervals notably convex; hind tarsi more slender than usual. Length (♂) 8.0 mm.; width 2.9 mm. Texas (El Paso).

This is a rather distinct species, differing from *congruens* in its more prominent eyes and longer mandibles, among other characters.

The two following small species are members of the *parallelus* and *hesperius* section:

Discoderus parvuliceps n. sp.—Parallel, black or faintly piceous, shining, black beneath, the legs obscure rufous, with black femora; head small, scarcely more than half as wide as the prothorax, with prominent eyes and short narrow apical strioles; antennæ testaceous, slender; prothorax long, between a fourth and third wider than long, the sides broadly arcuate, more so and strongly converging apically, more parallel basally; apex but slightly over two-thirds as wide as the base, with narrowly rounded apical angles; basal angles well rounded; side margins very finely reflexed; base broadly sinuate medially; surface smooth, the transverse impressions and fine median line almost obsolete, feebly subdeplanate along the angles, the impression near outer fourth at base distinct and somewhat oblique; elytra one-half longer than wide, parallel, circularly rounded behind, barely at all wider than the prothorax, the subapical sinus virtually obsolete; striæ rather fine, impressed, coarser on the declivity, the scutellar well developed; punctures of the three series small and widely separated; intervals only feebly convex. Length (♂) 6.8 mm.; width 2.8 mm. Colorado (Wray), —Shantz.

Differs from *parallelus* in the slightly longer and still more apically narrowed prothorax, with more distinct basal impressions and in the more elongate elytra.

Discoderus gener n. sp.—Narrower and more elongate, convex, polished and rather deeper black, the legs almost similar; head not quite so small, very slightly more than half as wide as the prothorax, the eyes evidently less prominent, the apical strioles feeble and very minute; antennæ somewhat fusco-testaceous, slender; prothorax a fourth (♂) or a third (♀) wider than long, nearly as in the preceding but not quite so narrowed at apex, the transverse impressions more evident, the impression at lateral fourth deep, more separated from the base; elytra rather more than one-half longer than wide, a very little shorter in the female, subequal in width to the prothorax, the apices, striation and intervals nearly similar. Length (♂ ♀) 7.1–7.25 mm.; width 2.7–2.8 mm. Washington State (Wawawai). Two specimens.

Narrower and more elongate than *parallelus* and even a little more so than *parvuliceps;* they both, as well as *parallelus*, have the prothorax much more elongate than in *hesperius* and the size of the body not quite so small. The specimens of the ample series of *parallelus* in my collection were taken from the Atlantic coast to Iowa and Missouri, and the still larger series of *hesperius* at various localities in Texas, Kansas and Colorado.

Stenomorphus Dej.

This is one of the more isolated Harpalid genera, not only in general habitus but in some of its special structural characters. The two following species seem to be undescribed:

Stenomorphus parallelus n. sp.—Shining, piceo-castaneous, the under surface and legs dark rufous; head moderate, longer than wide, two-thirds as wide as the prothorax, the neck long and the eyes prominent; anterior impressions large and deep; antennæ ferruginous, compressed, the medial joints two and one-half times as long as wide on the flattened side; prothorax not quite a third longer than wide, the sides subparallel, arcuate, more convergent and faintly subsinuate in about basal third, all the angles broadly rounded; surface smooth, with distinct transverse rugæ medially, without transverse impressions but with a large deep elongate-oval impression at each side near the base, the bottom of the impression more deeply lineate; median line fine and entire; base feebly sinuate, two-thirds the maximum width; elytra parallel, two-thirds longer than wide and three-fourths longer than the prothorax, only just visibly wider than the latter, the striæ rather coarse, deeply impressed, very coarse on the apical slope, the sinuses long and shallow; scutellar stria well developed. Length (♀) 10.7 mm.; width 3.0 mm. Kansas (McPherson),—Knaus.

Differs from the female of *scolopax* in its rather broader and more abbreviated outline, relatively somewhat smaller and shorter head, broader and less elongate prothorax, with more arcuate sides and relatively shorter elytra, which are barely wider than the prothorax and not much wider than that part as they are in *scolopax*.

Stenomorphus arcuatus n. sp.—More slender in form, shining, piceous; head rather small, though two-thirds as wide as the narrower prothorax, with prominent eyes and two moderate apical foveæ; antennæ long, testaceous, only feebly compressed, the medial joints almost three times as long as wide on the broader face; prothorax narrow, nearly one-half longer than wide, the sides subparallel, broadly arcuate, more converging and faintly sinuate basally, all the angles moderately rounded; surface only faintly, transversely rugulose, the anterior transverse impression evident, the lateral foveæ long, narrow, deep, almost extending to the base and near lateral fifth; base truncate, four-sevenths the maximum width; elytra parallel, fully three-fourths longer than wide, three-fifths longer than the prothorax and almost a third wider; striæ rather deep but with almost flat intervals, rapidly exarate on the apical slope. Length (♀) 10.7 mm.; width 2.85 mm. Texas (Dallas). One example.

Differs from the other two species here mentioned in its more slender form and especially in the outline of the prothorax, which is here narrower and more elongate and with the sides arcuate in such a way that the widest section is just beyond the middle and not near the apex; the head also is evidently smaller.

Anisodactylus Dej.

A considerable number of undescribed species have come to light in this genus, of which the following may be made known at the present time:

Anisodactylus tioganus n. sp.—Oblong, rather narrow, convex and shining, deep black throughout the body and legs, the antennæ pale at base; head as in *nigerrimus*, but relatively a little larger, the eyes even less prominent; prothorax as in that species but with the basal impressions shallower and not quite so lateral, being somewhat within lateral fourth and with the lateral parts of the basal region finely, densely and conspicuously punctate; narrow lateral deplanature punctulate, becoming obsolete only very near the apex; elytra distinctly more than one-half longer than wide, only very slightly wider than the prothorax; striæ moderate, not deeply impressed, the second with an adherent puncture just behind apical third; intervals nearly flat even in the male; scutellar stria well developed; apical sinuses very shallow; anterior male tarsi distinctly dilated, obscurely rufescent. Length (♂) 10.0 mm.; width 3.65 mm. Pennsylvania (Tioga Co.).

Evidently allied to *nigerrimus* Dej., but a little smaller and much narrower, with much more conspicuous latero-basal thoracic sculpture and more elongate and less highly polished elytra, having the strial intervals decidedly less convex; the prothorax is shorter.

It is possible that such species as *furvus*, *harrisi*, the two here mentioned and the following, all having rather broadly rounded thoracic angles, could be transferred to *Xestonotus*, although there would be considerable diversity of habitus.

Anisodactylus lacertosus n. sp.—Oblong, rather convex, deep black, polished, the elytra feebly alutaceous in the female; legs black, the anterior tarsi piceo-rufous; head moderate, scarcely three-fifths as wide as the prothorax, the middle of the front with a feeble transverse red spot; apical strioles short and narrow, deep; eyes rather convex; antennæ fusco-testaceous, the first joint paler, rufous, the medial joints feebly compressed, a little more than twice as long as wide; prothorax only two-fifths wider than long, the parallel sides broadly and evenly arcuate, with moderate black reflexed edges, the basal angles broadly rounded; surface smooth, with a few feeble transverse rugulæ, broadly densely punctate basally, except at the middle and thence anteriorly along the abruptly explanate sides, extending to the apex, the longitudinal basal impression at outer fourth shallow; transverse impressions broad, shallow and obtuse; elytra three-fifths longer than wide, at the middle of the parallel and feebly arcuate sides barely visibly wider than the prothorax; striæ sharp, smooth, distinctly impressed, not much coarser apically, the puncture adhering to the second at three-fifths, the scutellar stria unusually long and deep; intervals distinctly convex, flatter apically. Length (♀) 13.0 mm.; width 4.9 mm. A single specimen, probably taken by Levette in Indiana.

This species is very distinct and is allied somewhat to *harrisi*, but is larger, more elongate and with flatter strial intervals apically; the prothorax is even less transverse than in that species.

In *interpunctatus* Kirby, of which I now have an authentic example from Lake Superior—those which I previously identified under this name being merely *nigritus* Dej.—the body is a little shorter and more ventricose and the head smaller and with less prominent eyes than in *nigritus*. The confused punctulation of the

strial intervals is generally discoverable; it is very feeble in *nigritus* but, in *interpunctatus* becomes closer and more conspicuous.

Anisodactylus aleneanus n. sp.—Elongate, moderately convex, black throughout, shining, the elytra rather less so; head nearly two-thirds as wide as the prothorax, the eyes moderately prominent, the apical strioles narrow, slightly oblique; front with a feeble nubilous central transverse spot; antennæ fuscotestaceous, rather long, only very moderately compressed; prothorax only a little over a third wider than long, the sides feebly inflated and rounded, becoming slightly convergent and feebly sinuate behind about the middle, the basal angles scarcely more than right and well defined; surface nearly smooth, closely, strongly punctate and feebly impressed sublaterally at base, convex and less punctate thence to the rather narrowly, subequally reflexed and punctulate sides; transverse impressions distinct, the median line deeply impressed; elytra parallel, with feebly arcuate sides, three-fifths longer than wide, barely a fifth wider than the prothorax; striæ sharply defined but not distinctly impressed, the intervals nearly flat; puncture of the second stria near three-fifths; scutellar stria deep and well developed, widely free; anterior male tarsi rather widely dilated but virtually black. Length (♂) 11.0 mm.; width 4.2 mm. Idaho (Cœur d'Alene), —Wickham.

Allied only to *oregonus*, but differs in its larger size and more elongate outline, also in the slightly more elongate antennæ; the apical sinuses of the elytra are deeper.

The following is also allied to *oregonus*, but differs in its more abbreviated form and in its relatively larger and more transverse prothorax:

Anisodactylus comes n. sp.—Oblong, subparallel, deep black and moderately shining, not so polished as in *oregonus;* head as in that species and with only moderately prominent eyes, also with the large, deep and irregular apical impressions of that species; antennæ shorter, fuscous, rather strongly compressed, the medial joints not quite twice as long as wide on the flattened side; prothorax relatively larger, nearly one-half wider than long, the surface similarly moderately reflexed along the sides, the basal impressions strongly, closely punctate; basal angles nearly right, rather sharp, the sides before them oblique and almost straight; transverse impressions feebler, the median line finer and less impressed; elytra oblong, but just visibly wider than the prothorax, the striæ sharp but moderate, only feebly impressed, the puncture at three-fifths feeble, the scutellar stria less impressed and not so free; intervals (♀) only feebly convex. Length (♀) 9.5–10.5 mm.; width 3.8–4.0 mm. California (Humboldt Co., Valley of Redwood Creek). Two specimens.

Besides its larger and broader prothorax, this species differs from *oregonus* in having the anterior tarsi of the female darker, shorter and relatively broader than in the same sex of that species, where they are rather bright rufous.

Anisodactylus mæstus n. sp.—Oblong, moderately convex, not very shining, the elytra opaque (♀), deep black, the legs wholly black; head rather more than two-thirds as wide as the prothorax, but with not very convex eyes, the apical strioles slightly oblique, each ending posteriorly in an irregular transverse im-

pression; central nubilous red spot very faint; antennæ piceous-black, with obscurely rufous basal joint, thick and but feebly compressed; prothorax two-fifths wider than long, subinflated and with arcuate sides, which become oblique and straight posteriad, the angles slightly more than right but sharply defined; surface rugulosely and feebly punctate in the shallow transverse anterior, and large shallow posterior, impressions, the latter separated from the sides by less punctate elevation; feebly reflexed margins not extending to the base; median line distinct; elytra one-half longer than wide, with parallel and broadly arcuate sides and about a third wider than the prothorax; striæ distinctly impressed basally, thence throughout and externally fine and rather feeble, with perfectly flat intervals, the third with a small puncture at four-sevenths, remote from the second stria; scutellar stria long and deep, free; third and fourth striæ unevenly interrupted just before the middle in the type. Length (♀) 10.8 mm.; width 4.0 mm. California (Sta. Cruz).

Allied in some respects to *obsolescens*, but with the eyes somewhat less prominent, the anterior thoracic impression distinct and strongly punctured, the basal part of the elytral striæ more impressed and the apical sinuses deeper; the elytral humeri are much more exposed basally, as in *humeralis*, from Reno, Nevada, but in the latter species the pronotum is differently and very much less punctured.

Anisodactylus (Aplocentrus) viridans n. sp.—Oblong-suboval, rather convex, moderately shining, black, with pronounced greenish lustre above, deep black beneath, the legs obscure rufous, with black femora; head barely more than half as wide as the prothorax, with rather prominent eyes, the anterior strioles narrow, oblique, rather long and uneven; antennæ slender, blackish, with the first three joints testaceous; medial joints fully three times as long as wide; prothorax barely more than a third wider than long, the sides broadly arcuate and converging anteriad, parallel and nearly straight behind about the middle, the marginal bead testaceous; basal angles right, with the apices minutely blunt; surface smooth, finely punctured latero-basally, deplanate laterally and with a feeble impression at about lateral third and basal fourth; transverse impressions very feeble; elytra four-sevenths longer than wide, parallel, with feebly arcuate sides, very slightly wider than the prothorax; striæ sharp and rather strong, the second with a puncture adhering externally at four-sevenths; scutellar stria long and free; intervals flat. Length (♂) 8.0 mm.; width 3.35 mm. Kansas (McPherson),—Knaus.

When compared with the male of *cœnus* this species can be seen to be notably narrower in outline, with relatively less transverse prothorax and with the pronotum in general nearly smooth and not loosely subrugose as it is in that species; the coloration also differs, although this is less important.

Triplectrus Lec.

The species of this genus in some parts of the series become closely allied and rather difficult to separate, unless there be a considerable number of specimens. The genus itself is undeniably

closely allied to *Anisodactylus*, and in some of the latter the anterior tibial spur is angularly dilated at each side near base. The following species is widely isolated in general appearance, due to the abruptly broad pale deplanate pronotal margins:

Triplectrus marginatus n. sp.—Rather broad, oblong, moderately convex and unusually shining throughout; piceous-black, the broad deplanate thoracic margins diaphanously pale testaceous; under surface deep black, the legs dark rufo-piceous; head well developed, though scarcely over half as wide as the broad prothorax, the eyes rather prominent; apical strioles short but deep; antennæ black, the first two joints and part of the third testaceous, the medial joints between two and three times as long as wide; prothorax large, transverse, fully one-half wider than long, evenly and moderately narrowed from the narrowly rounded basal angles to the apex and evenly, very moderately arcuate; pallid lateral deplanature almost smooth, gradually narrowing but attaining the apex; surface nowhere evidently punctate, finely, longitudinally rugulose medially at apex and base; transverse impressions barely traceable; base margined in medial half only; elytra very little more than one-half longer than wide, parallel. with feebly arcuate sides, gradually ogival apically, barely as wide as the prothorax; striæ smooth, abrupt, deep; intervals 3–5–7 strongly, the others feebly or scarcely convex, 3, 5, 7 with a medial series of distinct punctures from near the middle to near the apex successively, the third with a coarser deep puncture at four-sevenths, near the second stria; scutellar stria long, free; male with the first two tarsi rather strongly dilated. Length (♂) 11.0 mm.; width 4.6 mm. Michigan (Grayling—near Bay City),—C. V. Piper.

This is one of the more distinct species of the genus and it might take its place at the head of the series of *Triplectrus* proper; with such species as *anthracinus* to follow; it does not resemble *Gynandrotarsus*.

The species *carbonarius* of Say, rather common from Long Island to Kansas, as well as the two following species, are distinguished primarily also by rather abruptly deplanate side margins of the pronotum, though in these the flattened margin is not so broad as in *marginatus*, which species is shorter and broader and with alternating elevation of the strial intervals which is not noticeable here; *carbonarius* is notably elongate, with densely opaque elytra in the female, more feebly so in the male. The following species is much shorter and relatively broader than *carbonarius:*

Triplectrus brevior n. sp.—Female oblong, moderately convex, deep black throughout, feebly shining, the elytra densely opaque; head very moderate, a little more than half as wide as the prothorax, the eyes rather prominent, the apical strioles short and subpunctiform; antennæ blackish, the first joint obscure testaceous, the medial joints nearly three times as long as wide; prothorax short, fully four-sevenths wider than long, only very little narrowed apically, the sides evenly and rather strongly arcuate; surface broadly impressed and densely punctate latero-basally and thence along the abruptly deplanate sides, which become narrow and concave anteriorly; basal angles blunt and very slightly more than right; transverse impressions obsolete, the median line fine but

distinct; elytra one-half longer than wide, slightly though obviously wider than the prothorax, parallel, with feebly arcuate sides, smooth; striæ fine, not notably coarser apically; intervals very feebly convex, the third with a small and feeble puncture adjoining the second stria at four-sevenths and another more discal near three-fourths; apical serial punctures extremely few and scarcely obvious; scutellar stria rather long but not coarse. Length (♀) 11.2 mm.; width 4.5 mm. Pennsylvania (locality not otherwise recorded).

This species is allied to *carbonarius*, but, besides being much shorter, differs in its notably abbreviated prothorax, somewhat larger head and longer tarsi.

The following differs in its notably larger head, more convex surface and very much less abrupt and almost impunctate lateral deplanature of the pronotum; also in coloration:

Triplectrus semirubidus n. sp.—Oblong, rather broad, the female somewhat feebly shining, with densely dull elytra, black throughout, excepting the pronotal sides and the entire elytra, which are pale rufo-ferruginous; head large, nearly three-fifths as wide as the prothorax, the eyes very moderate and scarcely at all prominent, the apical strioles short and feeble; antennæ missing in the type; prothorax large, about one-half wider than long, narrowed slightly near the apex, the sides subparallel, feebly arcuate, a little more so apically; basal angles nearly right but broadly rounded, a little more broadly than in *carbonarius;* surface smooth, with large rounded shallow impression near outer fourth of the base, then convex and at the sides rapidly declivous, wholly impunctate latero-basally, except sparsely and very shallowly on the non-abrupt lateral deplanature; margination of the base wanting medially; median line fine, connected with some fine transverse incised lines; elytra only three-sevenths longer than wide, scarcely visibly wider than the prothorax, the parallel sides feebly arcuate; striæ rather strong, only a little coarser apically, the scutellar moderate, oblique; intervals wide, virtually flat; posterior punctures almost as in *carbonarius*, but very faint. Length (♀) 11.3 mm.; width 4.8 mm. Illinois (Highland Park, north of Chicago).

This distinct species cannot be the same as that named *rufipennis* by LeConte, as the sides and base of the pronotum are there punctate, presumably as in *carbonarius*, with which it was united as a probable accident of coloration; the head, also, is apparently smaller in *rufipennis* and the scutellar stria longer and parallel "recta"; *rufipennis* was described from the vicinity of New York City.

The following may be placed just after *haplomus* Chd., but is broader and with the thoracic sides much more abruptly and horizontally deplanate:

Triplectrus wolcotti n. sp.—Oblong-oval, grayish-black, the thoracic sides feebly and nubilously rufescent; surface dull, the anterior parts more shining; head somewhat wider than long, about three-fifths as wide as the prothorax, with well-developed and moderately prominent eyes and short coarse apical strioles; front without trace of puncture; antennæ slender, fuscous, paler at base, not extending to the thoracic base; prothorax three-sevenths wider than

the median length, the sides converging, evenly, moderately arcuate from base to apex; surface smooth, the sides not very broadly but abruptly deplanate and sparsely, feebly punctulate externally, the convexity extending to the angles posteriad, inside of which and just beyond lateral third there is a large smooth oblong impression; angles rather narrowly rounded, somewhat less than right; median line impressed, biabbreviated; transverse impressions wholly wanting; apex rather deeply, evenly sinuate; elytra short, only a third longer than wide, as wide as the prothorax, gradually broadly ogival at apex; striæ rather fine but deep and sharp; intervals feebly convex to virtually flat, the alternate ones with a loose series of punctures apically. Length (♀) 11.2–11.5 mm.; width 4.8 mm. Northern Illinois (near Chicago),—A. B. Wolcott. Two examples.

The basal thoracic angles are much less rounded and more distinct than in *haplomus*, and the basal impressions much deeper and more conspicuous, besides the differences above noted. The dimensions of my single specimen of *haplomus*—from St. Louis, Mo.—are 10.6 by 4.45 mm.

The following species is small and allied to *rusticus* Say:

Triplectrus oblongus n. sp.—Oblong, parallel, moderately convex, dull in lustre, the elytra more opaque, subsericeous, grayish-black, the under surface and legs deeper black, the pronotum faintly and nubilously rufescent toward the rather narrowly rounded hind angles; head moderate, barely more than half as wide as the prothorax, nearly as in *rusticus*, the eyes not quite so prominent; antennæ piceous, the first two joints testaceous, the median joints about twice as long as wide on the moderately flattened sides; prothorax rather short, three-fifths wider than long, otherwise nearly as in *rusticus*, except that the median line is more widely biabbreviated; elytra narrower than in that species but otherwise nearly similar, equal in width to the prothorax, the intervals flat; oblique apical sinus a little shorter. Length (♀) 9.6 mm.; width 3.8 mm. Pennsylvania (Nisbet). One specimen.

When contrasted with a series of about thirty specimens of *rusticus* in my collection, extending in range from New England to Colorado and Arizona, the present species is seen to differ in its more abbreviated form and much shorter prothorax, also in its slightly shorter antennæ. The hind tarsi in both are long and very slender.

The type of *æthiops* Csy., is represented solely by the single female from Austin, Tex. (Mem. Col., V, p. 175); the two females from Waco, Tex., there placed with the type, constituting as I now find quite a different species, much broader in outline and with notably convex strial intervals, which in *æthiops* are but slightly convex. The Waco specimens may be described as follows:

Triplectrus sulcipennis n. sp.—Broadly oblong-suboval, moderately convex, grayish-black, the sides of the pronotum and of the elytra, especially behind, very faintly rufescent; legs dark and obscure rufous throughout; surface rather shining, except laterally, the elytra densely opaque, at least in the female; head four-sevenths as wide as the prothorax, with moderate and rather prominent

eyes, the short apical strioles not linear as in *æthiops* but deep, perforate and punctiform, also at an unusually long distance from the apical edge; antennæ obscure testaceous, slender, paler at base, a little longer than in *æthiops;* prothorax large, three-sevenths wider than long, the feebly converging sides evenly and more strongly arcuate, the angles similar; surface similar but with the side margins less strongly reflexed; elytra four-sevenths longer than wide, in outline and relationships nearly similar but broader, the striæ similar, not coarse but sharply deep, the intervals much more convex and prominently so along the middle; tarsi long and slender. Length (♀) 11.4–12.4 mm.; width 5.0–5.2 mm. Texas (Waco). Two specimens.

To be easily known by the broad, oblong-oval form and strongly elevated strial intervals of the elytra; the deep scutellar stria is notably long, parallel and free, as in *æthiops;* in the latter species the legs are more nearly black. The width of the type of *æthiops* is scarcely 4.75 mm.

The two following species are allied to *peropacus*, having an opaque surface and strongly convex strial intervals:

Triplectrus breviceps n. sp.—Elongate-suboval, moderately convex, deep black throughout, opaque, the anterior parts a little less so; head large, wider than long, four-sevenths as wide as the prothorax, the eyes unusually large but scarcely at all prominent, the anterior strioles short, deep and coarse; antennæ slender, blackish, the first two joints testaceous, the medial joints fully three times as long as wide; prothorax large, a little less than one-half wider than long, the sides moderately converging, evenly and moderately arcuate from the narrowly rounded basal angles to the apex; surface smooth, evenly declivous toward the sides, with a narrow feeble linear subbasal impression at each side between fourth and third, wholly impunctate, but throughout with fine remote transverse ruguliform lines; median line fine, feeble; elytra not quite one-half longer than wide, as wide as the prothorax, gradually ogival at apex, the striæ rather fine but deeply impressed; intervals convex, becoming nearly flat posteriad; scutellar stria long, free; tarsi long, slender. Length (♀) 19.0 mm.; width 5.4 mm. Alabama (Mobile),—Löding.

Larger than *peropacus* and more elongate, with larger and more abbreviated head and rather less prominent eyes, the sides of the pronotum not narrowly deplanate as in *peropacus*, but evenly and convexly sloping throughout to the side margins.

Triplectrus longicollis n. sp.—Much smaller than in either the preceding or *peropacus*, oblong, rather convex, parallel, deep black, the anterior male tarsi also deep black, distinctly dilated, the intermediate a little less so; surface opaque; head moderate, barely more than half as wide as the prothorax, as long as wide, the eyes rather prominent; anterior strioles coarse, punctiform, not quite attaining the apical margin; antennæ nearly as in the preceding; prothorax large, only two-fifths wider than long, the sides subevenly arcuate and moderately converging from the right and only narrowly blunt basal angles to the apex; surface smooth, as in *peropacus* throughout, the narrowly deplanate sides similarly being gradually lost basally; reflexed side margins much finer than in *peropacus;* apical angles similarly well rounded; elytra as wide as the prothorax and not quite twice as long, similarly striate and with the intervals (♂) also distinctly convex through-

out; in *breviceps* the intervals in the female are much flatter throughout than in the same sex of *peropacus;* scutellar stria long, strong, tending to unite with the first stria; posterior punctures few in number and as in *peropacus.* Length (♂) 10.3 mm.; width 4.2 mm. District of Columbia. One specimen.

This species is quite distinct from *peropacus*, though considered with the types of that species in my revision of the genus; it is narrower and very much smaller, and the anterior male tarsi are evidently less strongly dilated.

The following species is to be placed near *convexus:*

Triplectrus kempi n. sp.—Oblong, rather strongly convex, slightly shining, the elytra (♀) much more so than in the same sex of *convexus*, deep black throughout, the hind angles of the prothorax feebly and nubilously rufescent; head rather short, four-sevenths as wide as the prothorax, with the eyes distinctly prominent, the anterior strioles fine and short, much smaller than the concavities of *convexus;* antennæ slender, black, the first two joints piceous; prothorax large, more than one-half wider than the median length, the sides only just visibly converging, broadly and subevenly arcuate from the right and narrowly rounded basal angles to the apex; surface smooth, nowhere punctate, having a few irregular indentations basally, the sides steeply anteriad, gradually more gently posteriad sloping to the fine and but very feebly elevated lateral edges; transverse impressions obsolete as usual; median line fine, broadly biabbreviated; elytra evidently less than one-half longer than wide, equal in width to the prothorax, gradually obtusely rounding at the sides behind the middle; striæ rather fine, sharply deep, the intervals rather shining, very feebly convex; three punctures of the third small, near, to well behind, the middle and more or less near the second stria; scutellar stria rather short, parallel and widely free. Length (♀) 11.8 mm.; width 4.8 mm. New York (Lake George),—J. F. Kemp.

It is singular that the nearest relative of this species should occur only in the arid regions of Arizona; in *convexus* the body is stouter, more opaque and the sides of the pronotum slope very steeply to the side margins without trace of the declivous and gradual deplanature of this species.

Triplectrus paulus n. sp.—Narrow, parallel-suboval, moderately convex, deep black, feebly shining, the elytra a little more opaque in the female; legs black, the anterior and middle male tarsi piceous-black, moderately dilated; head four-sevenths as wide as the prothorax, barely visibly wider in the female, the eyes rather prominent (♂), less so (♀), the apical strioles short, deep and subpunctiform; antennæ slender, fusco-testaceous, clearer at base, the medial joints three times as long as wide, very little less in the female; prothorax a little less (♂) or more (♀) than one-half wider than long, the sides nearly parallel and moderately arcuate throughout, the right basal angles rather narrowly rounded; surface smooth, without transverse impressions, rapidly declivous at the sides, somewhat more gradually basally, slightly within outer fourth having a very feeble linear impression at base; elytra nearly one-half (♂) or about a third (♀) longer than wide, barely visibly wider than the prothorax, distinctly ogival at apex; striæ not very coarse but deep, coarser on the declivity, the scutellar rather long, free; intervals very slightly convex, equally so in both sexes, the third with a series of about five small punctures in apical two-fifths. Length (♂ ♀) 8.7–9.0 mm.; width 3.3–3.7 mm. Texas (Austin). Two specimens.

I found the two types of this species mixed with a good series of *opaculus* Lec., in my collection, but it is very much smaller, with shorter prothorax and deeper elytral striæ, more distinctly coarse on the declivity and with more convex intervals, these being virtually flat in the female of *opaculus;* the head also is evidently smaller.

Triplectrus (Gynandrotarsus) beryllus n. sp.—Oblong-oval, strongly convex and polished throughout, black, with feeble greenish-metallic lustre, especially on the elytra, the under surface rufo-piceous, the legs rufous; head four-sevenths (♂) to nearly three-fifths (♀) as wide as the prothorax, the eyes prominent; apical strioles coarse, deep and irregular excavations; antennæ slender, fusco-testaceous, clearer toward base; prothorax a third (♂) to two-fifths (♀) wider than long, nearly parallel, with moderately arcuate sides, a little more so apically than basally, all the angles broadly rounded; surface smooth, the transverse impressions vestigial, the elongate shallow basal impression at outer fourth with a number of distinct punctures; sides very steep, more gradual toward base, the fine beaded margins all testaceous; elytra one-half longer than wide, rather less (♀), just visibly wider than the prothorax, with feebly arcuate sides and obtusely ogival apex; striæ deeply impressed; intervals convex, less so (♀), flatter apically in both sexes; second stria with a small puncture near apical third, not evident in the male; scutellar stria rather long and deep, free; anterior male tarsi moderately, the intermediate feebly, dilated. Length (♂♀) 9.0–9.3 mm.; width 3.35–3.45 mm. Kansas (McPherson),—Knaus. Three specimens.

Differs from *harpaloides* Laf., in its smaller size, narrower form, less transverse prothorax, with more broadly rounded basal angles, longer antennæ and shorter scutellar stria; also some other minor characters. The first joint of the anterior female tarsi is only just perceptibly swollen. I think *Gynandrotarsus* might just as well be considered a distinct genus.

Amphasia Newm.

The following is rather closely allied to *interstitialis* Say, but is apparently different; it is more parallel and less ventricose, with less abbreviated prothorax and more prominent and conspicuous mandibles:

Amphasia mollis n. sp.—Parallel, moderately convex, very pale testaceous throughout, except that the elytra are gradually very faintly clouded apically; head four-sevenths as wide as the prothorax, with rather prominent eyes and large, diffusely impressed apical impressions; mandibles large, longer than the distance from their base to the base of the head, pale testaceous, abruptly black at apex; antennæ long, slender, testaceous, the medial joints fully three times as long as wide; prothorax a little less than one-half wider than its medial length, parallel, the sides very evenly and rather strongly arcuate; basal angles very broadly rounded; surface feebly impressed and strongly, closely punctured in nearly basal half, sparsely at the middle, also with strong sparse scattered punctures apically; impressions obsolete; median line fine, biabbreviated; elytra nearly one-half longer than wide, barely visibly wider than the prothorax; striæ coarse, feebly impressed; intervals feebly convex, coarsely and densely punctate,

the scutellar stria coarse, deep and long. Length (♀) 10.0 mm.; width 3.65 mm. Illinois (Highland Park, north of Chicago). One specimen.

Differs considerably from *interstitialis*, being larger, parallel, less ventricose, with longer elytra having the strial intervals more densely punctate and the apex less obtuse, also in the much less abbreviated prothorax, with the apical sinus somewhat shallower and in its pale and not blackish elytra; finally in the larger and more conspicuous mandibles, as before stated.

Dicheirus Mann.

It has proved to be impracticable to clear up the difficulties encountered in my revision of this genus, and the species then unknown to me apparently continue so, but there are nevertheless a considerable number of species received from time to time, which cannot be placed with the known species in my collection, and I therefore venture to describe them. The following three belong to the first section of the genus, having the prothorax more or less inflated anteriorly and strongly narrowed thence to the base:

Dicheirus firmus n. sp.—Form somewhat as in *dilatatus*, but rather more abbreviated and not pale brown but deep black, with the anterior parts rufo-piceous, black or partially rufo-piceous beneath, the legs obscure rufous; head as in *dilatatus*, the similarly stout antennæ dark and very slightly shorter; prothorax a little broader, about a third wider than long, coarsely, sparsely and unevenly punctate; base broadly arcuate, the angles very obtuse, moderately rounded; elytra not more than three-sevenths longer than wide, parallel, very obtuse at apex and subequal in width to the prothorax, striate and punctured nearly as in *dilatatus*, except that the striæ are coarser, deeply and abruptly grooved. Length (♀) 8.4–8.8 mm.; width 3.35–3.5 mm. California (Alameda and San Francisco).

The sparse erect setæ throughout are very much as in *dilatatus* but, besides coloration, *firmus* differs in having the prothorax obviously less narrowed basally.

Dicheirus multiplex n. sp.—Much narrower and more elongate than either *dilatatus* or *firmus*, rather bright rufous throughout, except the elytra, which are piceous-black, the sutural interval rufous; surface shining; head rather longer than wide, three-fifths as wide as the prothorax and with moderate but prominent eyes, strongly and sparsely punctate throughout; antennæ dark rufous, compressed, the medial joints two and one-half times as long as wide on the flattened side; prothorax barely a third wider than long, the inflated sides becoming very oblique and nearly straight basally to the broadly obtuse but sharply defined and unrounded angles; surface strongly and very sparsely punctate, it and the elytra setulose as in the others of this section; elytra long, four-sevenths longer than wide, with parallel and nearly straight sides and rather obtusely rounded apex, very slightly wider than the prothorax, the striæ finer than in *firmus*, abrupt and deep, the intervals perfectly flat, the two series of punctures nearly as in *dilatatus* but somewhat smaller and less distant. Length (♀) 10.0 mm.; width 3.4 mm. California (Port Harford, S. Luis Obispo Co.).

Recognizable very readily by the notably elongate parallel form, coloration and unrounded though very obtuse basal thoracic angles.

Dicheirus beniciensis n. sp.—Elongate, parallel, moderately convex and shining, the elytra duller, rufo-piceous, the legs concolorous, the elytra very slightly darker; pubescence long, erect and rather sparse; head four-sevenths as wide as the prothorax, coarsely and loosely punctate, the eyes prominent; antennæ extending well behind the thoracic base, piceous, the third joint much longer than the fourth; prothorax nearly a third wider than long, widest near apical two-fifths, the sides evenly arcuate, becoming strongly oblique and straighter in about basal half, finely reflexed throughout; base distinctly narrower than the moderately sinuate apex, the angles obtuse and rounded; surface coarsely, loosely punctate, more sparsely so transversely at the middle; all impressions obsolete; median stria fine and incomplete; elytra four-sevenths longer than wide, parallel, with nearly straight sides and obtusely rounded apex, without apical sinuses, elytra about as wide as the prothorax to very slightly wider; striæ moderate, abrupt, impunctate; intervals nearly flat, the two juxta-strial series on each composed of moderate, widely and unevenly separated punctures, the scutellar stria free, straight and proceeding from a puncture; anterior male tarsi rather widely, subovally dilated. Length (♂ ♀) 9.8–10.0 mm.; width 3.7–3.8 mm. California (Benicia). Three specimens.

Differs from *multiplex*, to which it is probably most closely related, in its larger size, less slender form, longer antennæ, much more prominent eyes and many other features, including coarser serial punctures of the elytra.

There are several other varieties in this vicinity that seem to represent distinct taxonomic forms of the genus, but either so closely allied or represented by so few specimens, that it seems inadvisable to define them. One, represented by a male and female, slightly smaller and somewhat narrower, from an unrecorded locality in California, is nearly like *multiplex*, but not quite so elongate, with barely perceptibly paler sutural interval and not only very obtuse but broadly, evenly rounded basal thoracic angles and long and heavy antennæ—to be recorded as *validicornis* (n. subsp.)—and another, also like this and *multiplex* in coloration, but much shorter and broader in outline and with well-rounded basal thoracic angles, the sutural interval not evidently paler; it is labeled Port Harford, but is from a different collector than the type of *multiplex* and is probably none other than *firmus*.

Dicheirus exiguus n. sp.—Small, narrow, rather convex, shining, sparsely setose, black, the under surface piceous, the legs rufous; head rather small though three-fourths as wide as the prothorax, with moderate and notably prominent eyes; punctures deep, rather close laterally, sparse medially; antennæ rather thick but long, piceous, the basal joint black, distinctly compressed, the medial joints on the flattened side not quite twice as long as wide; prothorax two-fifths wider than long, the sides strongly arcuate, less so and oblique posteriad to the angles, which are right and sharp, with the sides before them parallel and

straight for a very short distance; surface convex, strongly, rather sparsely and somewhat unevenly punctate; median line partial, very fine; elytra long, two-thirds longer than wide, evidently wider than the prothorax, parallel, with nearly straight sides and obtusely rounded apex; striæ fine; two rows of the intervals with the punctures moderate, deep, separated by fully their own lengths; surface between the rows rather convex, being rather prominent when viewed under transverse illumination; scutellar stria very fine, rather short; anterior male tarsi moderately dilated. Length (♂ ♀) 5.7–6.8 mm.; width 2.15–2.35 mm. California (Del Norte Co.),—Nunenmacher.

A very distinct slender species, the smallest known to me at present; it cannot be the *brunneus* of Dejean, as this has the prothorax only a little wider than long and but feebly rounded at the sides and having much denser coarse punctuation; *brunneus* probably forms part of the *piceus* group, though only 6 mm. long.

Dicheirus gracilis n. sp.—Narrow, parallel, black throughout, the legs dark rufous; erect setæ sparse, only moderate in length; head rather small, though two-thirds as wide as the prothorax, the eyes notably prominent; surface coarsely and closely punctured, a little more loosely so medially; antennæ rather thick, piceous, the medial joints on the compressed side two-thirds longer than wide; prothorax barely a third wider than long, widest at apical third, the arcuate sides becoming gradually less rounded and oblique posteriad, the angles obtuse but not rounded and slightly prominent; surface nearly even, strongly and sparsely punctate; lateral edges very fine; elytra three-fifths longer than wide, parallel, with scarcely at all arcuate sides and broadly, subcircularly rounded apex, a little wider than the prothorax; punctures of the two interstrial series strong and rather close-set, the surface between the series narrowly convex by lateral illumination; striæ fine, the scutellar short and very fine; flanks with a series of coarse punctures in basal fourth and apical third. Length (♀) 6.7 mm.; width 2.65 mm. Washington State (Govan). One example.

Allied only to *exiguus*, but differing in its slightly larger size, more parallel form, much less abbreviated prothorax and longer antennæ; the coarse serial punctures along the elytral flanks are similar.

All of the following species pertain to the *piceus* group of the genus, which is distinguished not only by the more subcylindric form of the body and less basally narrowed prothorax, but by very sparse and inconspicuous erect setæ.

Dicheirus incidens n. sp.—Parallel, rather convex, polished, extremely pale rufo-testaceous throughout, the elytra, but not the scutellum, rather dark piceous, the reflexed lateral margins testaceous; head two-thirds (♂), nearly three-fourths (♀), as wide as the prothorax, with not very prominent eyes, coarsely, sparsely punctate, impunctate centrally; antennæ rather dark testaceous, the flattened sides of the medial joints not quite twice as long as wide; prothorax a fourth (♂) to not quite a third (♀) wider than long, the sides broadly arcuate, slightly converging and straight basally, the angles moderately rounded; surface as usual evenly convex, very feebly impressed basally near outer fourth; punctures moderately coarse, sparse throughout; median line distinct from the basal margin

not quite to the apex; elytra nearly two-thirds longer than wide, evidently wider than the prothorax, parallel, with feebly arcuate sides; oblique sides of the apex with rather long distinct sinus; surface feebly alutaceous distally in the female; striæ moderate; intervals very convex (♂), nearly flat (♀); two series unusually widely separated, the punctures fine, unevenly but often remotely separated; anterior male tarsi rather narrowly dilated. Length (♂ ♀) 7.3–8.3 mm.; width 2.85–3.0 mm. Oregon (Columbia River),—Shantz. Three specimens.

One of the more isolated species of the genus, by reason of its peculiar pale coloration, fine and widely separated series of the strial intervals, the latter in the male differing greatly from those of the female and very much more strongly convex than those of *piceus* (♂), also with more narrowly dilated anterior tarsal joints in that sex.

Dicheirus facilis n. sp.—Obscure rufous throughout, the legs slightly clearer, the elytra and scutellum deep black, parallel, convex and shining, the elytra slightly alutaceous apically but not thence to the base; head three-fifths as wide as the prothorax, strongly punctate, subimpunctate centrally; eyes well developed, but only moderately prominent; antennæ obscure rufous, long, the medial joints about twice as long as wide on the flattened side; prothorax large, two-fifths to three-sevenths wider than long; base as usual arcuate laterally, only a little narrower than the maximum width; surface feebly impressed at base near lateral fifth; punctures coarse, deep, sparse and somewhat uneven; elytra parallel, gradually obtusely ogival at apex, three-fourths longer than wide, slightly though evidently wider than the prothorax; striæ fine; intervals very feebly convex, the punctures of the double series strong and very widely though unevenly separated; scutellar stria rather long but fine, free; subapical sinuses long and very distinct. Length (♀) 9.2–9.5 mm.; width 3.35–3.45 mm. Oregon (Columbia River),—Shantz. Two specimens.

Resembles *piceus*, but is materially larger and differs also in coloration; the prothorax is unusually transverse.

Dicheirus sodalis n. sp.—Elongate, subparallel, strongly convex, shining, deep black throughout, the legs very dark, blackish-piceous; head coarsely and loosely punctate, well developed, nearly three-fourths as wide as the prothorax, the eyes moderate in size and prominence; antennæ piceous, as usual rather stout; prothorax unusually long, only a fourth wider than long, parallel, the sides feebly arcuate, a little more oblique and straight basally, the angles very obtuse but with scarcely rounded apex; surface not very coarsely, somewhat unevenly and very sparsely punctate; elytra parallel, rectilinear, three-fifths longer than wide, a little wider than the prothorax, obtusely ogival at apex, with distinct shallow sinuses; striæ moderate, abrupt, the intervals feebly convex; punctures of the double lines rather strong, very unequally well spaced. Length (♀) 8.8 mm.; width 3.25 mm. Washington State (Wawawai). One example.

Also allied to *piceus* but larger; it differs from the preceding in coloration and more especially in its larger and very much less transverse prothorax.

Dicheirus piceus Ménet., extends in moderate numbers from San Francisco to Washington State. The sutural interval in this,

as well as most other species of the *piceus* group, all of which are more or less closely interallied, bears only a single series of minute and very remote punctures, placed externally and easily overlooked.

Anadaptus Csy.

But few new forms in this genus have been discovered in recent years. There are two distinctly demarcated divisions of the genus, one with uniform elytral surface, the other with the alternate strial intervals smooth and coarsely punctate. The following is allied to *baltimorensis:*

Anadaptus uteanus n. sp.—Shining, black above and beneath, the elytra uniform pale red-brown, the epipleura similarly pale and also the entire legs; head rather large, with broad and uneven anterior impressions, the eyes somewhat prominent and well developed; antennæ fuscous, with paler basal joint, the compressed medial joints three-fifths longer than wide; prothorax fully a third wider than long, the rounded sides becoming convergent and broadly sinuate basally, the angles right and sharp; surface densely punctate basally and finely, sparsely and feebly so apically, the transverse impression feeble, that at lateral fourth at base rounded and deeper; elytra four-sevenths longer than wide, nearly a fifth wider than the prothorax, parallel, with feebly arcuate sides; striæ rather coarse, sharply and deeply grooved, the scutellar long; intervals (♀) very feebly convex; puncture of the third, adjoining the second stria, strong, deep and at three-fifths. Length (♀) 10.3 mm.; width 4.2 mm. Utah (Stockton),—Mr. Tom Spalding.

Differs from *baltimorensis* in its larger size, stouter form, larger head and especially the larger eyes, also by the more deeply sinuate sides of the prothorax toward the basal angles. From *nivalis* Horn, it differs in its larger head and eyes and absence of the characteristic discal piceous area of the elytra. In all these species the scutellar stria is well developed, rather arcuate and tends to join the first stria; it is longer as a rule in *uteanus* than in the common *baltimorensis.*

Anisotarsus Chd.

The species of this genus are numerous; the body is much more loosely articulated and with thinner integuments than in either *Anisodactylus, Triplectrus* or *Anadaptus.* The following are numerous undescribed species, more or less recently discovered:

Anisotarsus hebes n. sp.—Suboblong-oval, moderately convex, black, the elytra with greenish lustre, the legs rufous, also with narrow testaceous pronotal border; surface polished, the elytra only faintly alutaceous in the female; head small, only slightly more than half as wide as the prothorax, subtriangular, the eyes moderate in size and prominence; antennæ slender, testaceous; prothorax three-sevenths wider than long, the sides feebly and subevenly arcuate, nearly parallel basally, slightly converging apically, the basal angles slightly more than

right and narrowly blunt; surface smooth, nowhere punctate, the sides narrowly subexplanate, a little more broadly behind, having at the middle a large puncture; briefly linear impression at outer fourth of the base obvious but feeble; transverse impressions very feeble, the fine median line visible only centrally; elytra parallel, with arcuate sides and rather obtuse apex, three-fifths longer than wide and three-sevenths wider than the prothorax; striæ very fine, gradually less so and more impressed inwardly, the scutellar moderate; intervals feebly convex, more so suturally, nearly flat in the female, the puncture of the third adjoining the second stria near apical fourth; anterior male tarsi moderately dilated. Length (♂ ♀) 9.0 mm.; width 3.9–4.0 mm. Texas (Dallas). Three specimens.

Allied to *terminatus* Say, but decidedly shorter and broader and with relatively shorter and more inflated hind body.

Anisotarsus angusticollis n. sp.—Outline much narrower than in *terminatus*, similar to the preceding in coloration and lustre, the sides of the pronotum more abruptly though but little more broadly deplanate and rather less narrowly testaceous; legs very pale; head similar, though relatively larger, being two-thirds as wide as the smaller and much narrower prothorax; eyes a little larger; anterior impressions rather large, shallow and indefinite, somewhat rounded; antennæ testaceous, long and slender; prothorax barely a third wider than long, the sides feebly arcuate, subparallel, a little more rounded anteriad, the basal angles barely more than right, not very broadly but distinctly rounded; surface smooth, the basal impressions—within lateral fourth—small and feeble; transverse impressions not quite obsolete; apex a little less sinuate than in the preceding; elytra narrow, elongate, polished and greenish, suboval and nearly twice as long as wide, between a fourth and third wider than the prothorax, less obtuse at apex; striæ nearly similar, the discal puncture near apical fifth; anterior male tarsi evidently though rather narrowly dilated. Length (♂) 8.0 mm.; width 3.2 mm. Missouri (St. Louis). Two specimens.

This is the narrowest and one of the smallest species allied to *terminatus*, and is very distinct in all its characters.

The two following species may come between *calathoides* and *testaceus*, but are obviously distinct from either:

Anisotarsus fuscipennis n. sp.—Oblong-suboval, moderately convex, polished throughout (♂), the elytra strongly alutaceous (♀), pale flavo-testaceous in color throughout, the elytra piceous; head moderately small, scarcely four-sevenths as wide as the prothorax, with rather large but only moderately convex eyes, the anterior strioles small and slender, within large indefinite impressions; front with an impressed puncture midway between the eyes; antennæ long, slender, only feebly compressed and testaceous; prothorax two-fifths (♂) or nearly one-half (♀) wider than long, the sides feebly arcuate, more so and evidently converging anteriad, the basal angles a little more than right and narrowly rounded; surface nearly smooth, abruptly deplanate at the sides, more broadly and gradually toward base; subbasal impression at outer fourth large, rounded and shallow; apex almost truncate, only very feebly sinuate; elytra four-sevenths longer than wide, with parallel arcuate sides, nearly a third wider than the prothorax; striæ moderate, only a little coarser distally, the scutellar well developed; adherent puncture of the second near apical fourth; anterior male tarsi moderately dilated. Length (♂ ♀) 8.0–8.4 mm.; width 3.3–3.6 mm. Wisconsin (Bayfield) and Michigan (Marquette). Four specimens.

This distinct species may be placed near *testaceus*, but it is much more abbreviated and the elytra are piceous-brown; the female is obviously broader than the male.

Anisotarsus parallelus n. sp.—Subparallel but with broadly arcuate sides, rather strongly convex and with unusually dense integuments, black throughout, with slightly picescent prothorax, the legs testaceous; head four-sevenths as wide as the prothorax, with well-developed and rather prominent eyes, the strioles and impressions almost as in the preceding; antennæ slender, fuscous, almost entirely wanting in the type; prothorax rather large, two-fifths wider than long, the sides subparallel and feebly arcuate, gradually more arcuate and strongly converging anteriad, the basal angles somewhat broadly rounded; surface with some transverse striolate rugæ, nearly smooth, abruptly concavo-explanate laterally, becoming broadly flat posteriorly; basal impressions at outer fourth slender and feeble; median line very fine and feeble, visible only centrally; apex feebly sinuate; elytra notably long, about three-fourths longer than wide, parallel, with broadly arcuate sides and gradually obtusely ogival apex, barely a fifth wider than the prothorax; striæ fine and superficial, more distinct and feebly impressed suturad, the scutellar rather long; intervals flat; small puncture of the third near the second stria and at three-fourths. Length (♀) 8.6 mm.; width 3.4 mm. Missouri (St. Louis).

The integuments are denser and firmer in this species than in any of the allies of *sayi* and *terminatus*, and it is also rather isolated in its relationship; the elytral striæ become a little coarser at apex.

Anisotarsus subovalis n. sp.—Elongate-suboval, convex, shining, blackish-piceous above and beneath, the head, pronotum and epipleura slightly paler, rufescent; lateral reflexed margins more testaceous; legs pale rufo-testaceous; head barely as long as wide, four-sevenths as wide as the prothorax, with well-developed prominent eyes and obsolete apical strioles; antennæ fusco-testaceous, the first two joints slightly paler; prothorax fully three-sevenths wider than long, the sides broadly arcuate, less so and feebly oblique posteriorly and more so anteriad; base transverse, a third wider than the very moderately sinuate apex having rather obtusely rounded angles, the basal slightly more than right and blunt; surface smooth throughout, the narrow impression within lateral fourth very feeble, the median line very fine, much abbreviated anteriad; elytra subparallel, with distinctly arcuate sides, obtusely ogival apex and distinct sinuses, convex, three-sevenths longer than wide and nearly a fourth wider than the prothorax; striæ notably fine, smooth, subexarate on the declivity; intervals flat, with a feeble puncture on the third, adjoining the second stria a little beyond three-fourths; scutellar stria very fine, proceeding from a distinct impressed puncture; anterior male tarsi moderately dilated, subparallel. Length (♂) 7.0 mm.; width 2.85 mm. Missouri (Charleston),—Wade.

Although comparable with *terminatus*, this species is smaller, with much shorter and more oval elytra, the sides not more rounded basally as they are in that species.

Anisotarsus inerrans n. sp.—Short, oblong, moderately convex, highly polished throughout (♂), deep black, without metallic lustre, the lateral edges of the pronotum and elytra toward apex at the sides obscure testaceous; legs pale, flavate, the coxæ more obscure; head nearly three-fifths as wide as the prothorax,

somewhat wider than long, the eyes moderate, the anterior strioles almost obsolete; antennæ slender, testaceous; prothorax four-sevenths wider than long, parallel, the sides evenly and rather strongly arcuate; basal angles distinctly rounded; apex narrower than the base, very slightly sinuate; surface smooth, rapidly declivous to the very finely reflexed edges in about apical half, the sides thence more gradually declivous; impression at outer fourth small, very feeble and scarcely visible; elytra less than one-half longer than wide, slightly wider than the prothorax, parallel, with feebly arcuate sides and obtusely ogival apex, the sinuses distinct; striæ very fine, much deeper on the declivity, slightly impressed toward the suture, the intervals flat—almost so suturally; the puncture small, between two-thirds and three-fourths, the scutellar stria long, tending to unite with the first; anterior male tarsi very moderately dilated. Length (♂) 7.3 mm.; width 3.0 mm. Missouri (St. Louis).

This species is allied in some respects to the small and rather broadly oblong Texan species, which I identified as *agilis* Dej., and was considered under that head in my revision of the genus, but it is evidently different, having the male prothorax broader than in the female of *agilis*, and with the sides very much more strongly arcuate.

The species described by LeConte as *nitidipennis* is at least very closely related to *tenuitarsis*, as shown by the "accurately flat" strial intervals, as well as the notably large head, and it may be identical although it inhabits a more tropical environment, but the less flat intervals of *cephalus*, as well as the deeper suturally impressed striæ, show that this is not a varietal form of either *nitidipennis* or *tenuitarsis*, but a distinct species. The following two species belong to the *floridanus* group:

Anisotarsus connivens n. sp.—Oblong-oval, rather convex, highly polished throughout in the male, the female unknown; blackish-piceous in color, the pronotum and under surface dark rufous, the legs pale flavate; head four-sevenths as wide as the prothorax, with notably prominent eyes, the anterior strioles very minute, punctiform, at the bottom of shallow impressions, the interocular puncture small and feeble; antennæ slender, fuscous, testaceous basally; prothorax slightly more than one-half wider than long, the sides rather strongly, subevenly arcuate, a little more converging anteriorly, the basal angles obtuse and narrowly rounded; surface smooth, steeply declivous at the sides to a narrow and rather abrupt deplanature, becoming a broad convex feebly declivous surface basally; basal impression at outer fourth elongate and obtusely though deeply impressed; anterior transverse impression fine, sharp, angulate and distinct; apex broadly, rather shallowly sinuate as in *floridanus;* elytra rather less than one-half longer than wide, oval, with arcuate sides, about a fifth wider than the prothorax; striæ moderate, sharp, not much coarser distally; gradually stronger but only slightly impressed suturally; intervals very feebly convex; posterior puncture as in *floridanus* but smaller; anterior male tarsi moderately dilated. Length (♂) 7.75 mm.; width 2.9 mm. Florida (Marion Co.).

Easily distinguishable from *floridanus*—though rather closely related—by the relatively broader hind body or less parallel outline, piceous and not so metallic elytra and by the dark rufous prothorax.

Anisotarsus vernicatus n. sp.—Obtusely oval, convex, broader and much less parallel than *floridanus*, highly polished (♂), black, with greenish lustre, the head and prothorax very dark rufo-piceous; under surface and legs nearly as in *connivens;* head in size and structure almost as in that species, the central puncture still more nearly obsolete, barely traceable; slender antennæ differing in being entirely very pale testaceous; prothorax less transverse, scarcely one-half wider than long and with the apex almost rectilinearly truncate; sides as in *connivens*, the smooth surface nearly similar, except that the steeply sloping sides extend to the finely reflexed margin, and the anterior transverse impression is almost obsolete; basal impressions long, obtuse and deep; median stria very fine, partially obsolete; elytra oblong-oval, with parallel and somewhat arcuate sides, a little over one-half longer than wide and fully a fourth wider than the prothorax; striation still finer than in *connivens* or *floridanus* and scarcely at all coarser on the declivity, much more impressed suturally than in the former, but about the same as in *floridanus;* puncture more posterior than in either and about at apical fifth; anterior male tarsi very moderately dilated. Length (♂) 8.0 mm.; width 3.25 mm. Florida (Everglade Co.).

Differs from *floridanus* in its broader and more ventricose outline and very much less parallel sides and, from both *floridanus* and *connivens*, in its more nearly truncate thoracic apex, non-explanate pronotal margins and other important features.

Glycerius Csy.

Mr. Fall was good enough to exchange a specimen of his *politus*, *intermedius* and *obtusus*, so that I am now able to make known a few nondescripts in my collection. *Politus* is, I think, the most abundant species in California, and is widely distributed, but the other two seem to be much more restricted in habitat; the following three species are quite distinct:

Glycerius curticollis n. sp.—Of a somewhat piceous black, polished and bright æneo-metallic lustre, the legs pale flavate, slender; head two-thirds as wide as the prothorax or slightly more, with moderate but very prominent eyes, the anterior strioles strong and very oblique; antennæ slender, blackish, with pale basal joint, only feebly compressed; prothorax short and transverse, about four-sevenths wider than long, the sides moderately inflated and rounded just beyond the middle, oblique, becoming very feebly sinuate thence to the base, the angles rather distinct, slightly more than right; surface smooth, the sides steeply declivous to the margin, the transverse impressions vestigial; basal impression just outside of lateral fourth shallow and finely, sparsely punctate; elytra one-half longer than wide, a fifth wider than the prothorax, parallel, with feebly arcuate sides and evenly rounded apex; discal striæ wholly obsolete, the sutural and external distinct. Length 4.15–4.4 mm.; width 1.65–1.7 mm. California (Monterey). Two specimens.

Differs from *politus* in its much shorter and broader prothorax, longer antennæ and decidedly longer tarsi.

Glycerius tahoensis n. sp.—Smaller, polished, piceous-black, the elytral suture slightly paler; legs testaceous; head as in the preceding but smaller, the antennæ

similar in color but shorter and relatively thicker; prothorax not quite one-half wider than long, very moderately rounded at the sides, the latter feebly converging and just visibly sinuate behind, the angles distinct, barely more than right; apex subtruncate; surface smooth, the basal impressions feeble and with some fine sparse punctures; elytra nearly one-half longer than wide, parallel, with feebly arcuate sides and gradually rounded apex, not quite a third wider than the prothorax; sutural stria deeper and less abbreviated at base than in the preceding, the general surface with feeble vestiges of striæ; tarsi shorter. Length 3.8 mm.; width 1.4–1.45 mm. California (Lake Tahoe). Two specimens.

Excepting *obtusus*, this is the smallest species known to me; it differs greatly from *curticollis* in the total absence of the bright æneous lustre of the latter, more truncate thoracic apex, more visible elytral striation, in the sutural stria as mentioned above and in the shorter antennæ and tarsi. It is larger than *obtusus* and differs in its non-æneous lustre, longer antennæ and more parallel form, with much more parallel and less oval hind body.

Glycerius laticollis n. sp.—Elongate, parallel, convex, polished and with non-metallic lustre, piceous-black, the pronotum sometimes feebly, nubilously paler at apex and base, the elytral suture slightly pallescent; legs flavate as usual; head nearly as in the two preceding but smaller and with less prominent eyes; antennæ similar but somewhat longer; prothorax larger and less transverse, barely three-sevenths wider than long, the sides parallel, distinctly arcuate, slightly oblique and nearly straight behind; surface almost similar, but with rather more evident transverse impressions and more numerous and stronger punctures in and near the basal impressions; apex barely perceptibly sinuate; elytra longer, almost three-fifths longer than wide, parallel, with as usual nearly straight, basally arcuate sides and rapidly obtusely rounded apex, only about a fourth wider than the prothorax; sutural stria more acute and less impressed than in *tahoensis*, the surface rarely with faint vestiges of striation. Length 4.0–4.15 mm.; width 1.6–1.65 mm. Nevada (Reno).

The male is more abbreviated than the female and with just visibly broader anterior tarsi. This species is smaller, narrower and more parallel than *politus*, and differs from *tahoensis* in its much larger prothorax, less impressed sutural stria and other characters. The head and prothorax in *intermedius* are smaller than in any other species, giving to this very smooth form a distinctive appearance.

Stenocellus Csy.

This will prove to be a large genus of widely extended distribution in North America. It is very close in general facies to the usual form of *Acupalpus*, but, besides the mentum tooth, given as a distinguishing feature in my arrangement in Mem. Col., V, it will be observed that the hind tarsi are usually more elongate in *Stenocellus*. Besides this, the scutellar stria is wanting in *Stenocellus*,

but distinct and parallel though short in *Acupalpus*. The two following species seem to be undescribed as yet:

Stenocellus carolinensis n. sp.—Rather narrow, moderately convex, polished, pale testaceous, the anterior parts of the head and most of the elytra, excepting the suture, shaded darker; under surface and legs pale; head unusually large, four-fifths as wide as the prothorax, with notably prominent eyes and large deep apical foveæ, which are obliquely prolonged toward the eyes by a short fine groove; antennæ moderately long, obscure, the first two joints pale; prothorax a fourth wider than long, the sides moderately oblique and arcuate from near apex to the obtuse but sharp basal angles; transverse impressions evident medially but obtuse, the basal impression near outer fifth deep, feebly and narrowly punctate; elytra about one-half longer than wide, with subparallel and feebly arcuate sides and rapidly rounded humeri, about a fifth wider than the prothorax, the striæ moderate but evidently impressed, especially suturad; hind tarsi slender, rather shorter than usual. Length 2.5 mm.; width 0.8 mm. North Carolina (Southern Pines), —Manee.

The neck is rather long and parallel behind the notably prominent eyes. This species may be placed next to *larvatus* in my original table, which species also has a large head and prominent eyes, but here the antennæ are heavier, the prothorax less transverse and the general coloration not so pallid; *larvatus* inhabits the arid regions about El Paso, Texas.

Stenocellus veronianus n. sp.—Very small, slender, convex, polished; anterior parts testaceous, the pronotum paler; elytra black; under surface piceous, the very slender legs pale yellow; head nearly three-fourths as wide as the prothorax, the eyes prominent; surface notably convex, smooth, the anterior foveæ very widely impressed; antennæ fuscous, the first two joints pale testaceous, slender, gradually incrassate distally, extending about to the middle of the body; prothorax smooth and convex, a fifth wider than long, widest beyond the middle, with the sides subevenly arcuate, more converging basally; base fully three-fourths as wide as the subtruncate apex, which has obtuse and slightly blunt angles, the basal angles obtuse but minutely, bluntly subprominent; transverse impressions very feeble, the median stria very fine, subentire; sublateral impressions at base rounded, very shallow and finely, sparsely punctulate; elytra parallel, barely at all arcuate at the sides, circularly rounded at apex, two-thirds longer than wide and about a third wider than the prothorax, feebly and nubilously rufescent at base; striæ deeply impressed, smooth, the scutellar wanting as usual; intervals moderately convex; discal puncture of the third at three-fifths; anterior male tarsi with the basal joint feebly dilated. Length (♂) 2.35 mm.; width 0.78 mm. Florida (Vero),—Wade.

This species, one of the smallest of the genus, may be placed near *carolinensis*, but it is narrower and has longer antennæ, among other differences.

Stenocellus humboldtianus n. sp.—Oblong, moderately convex polished, pale testaceous, the elytra obscure near the suture, the under surface of the hind body rufo-piceous; legs pale flavate; head three-fourths as wide as the prothorax, with rather large, moderately prominent eyes; central puncture of the front

distinct, the apical foveæ large and deep; antennæ moderate, fusco-testaceous, paler basally; prothorax a fourth wider than long, the broadly and subevenly arcuate sides but slightly oblique posteriad, the angles broadly obtuse and somewhat blunt; apex barely visibly sinuate, somewhat narrower than the base; latero-basal impressions moderate, finely and closely punctate; elytra but little more than one-half longer than wide, obtusely rounded at apex, the parallel sides feebly arcuate, scarcely a third wider than the prothorax; striæ strong, deeply impressed, more shallowly outwardly. Length 4.2 mm.; width 1.4 mm. California (Hoopa Valley, Humboldt Co.).

Somewhat resembles *lineatus*, but larger, with larger and more prominent eyes, rather more transverse prothorax and more obtuse and less sharply marked basal thoracic angles. From *nubicollis* it differs in its much less abbreviated prothorax, rather less prominent eyes and less elongate antennæ.

Of *neglectus* Lec., of which I had no representative in my revision of the genus—being forced to quote the description of LeConte, I have recently obtained a number of specimens from Marquette, Lake Superior, and Edmonton, Alberta; *festinans*, from an unrecorded locality in Texas and from Sedgwick Co., Kansas, is more elongate and also with longer antennæ, more prominent eyes and more convex strial intervals; *suavis*, from Austin, Texas, is narrower, with less transverse prothorax and much larger and more prominent eyes, as well as more convex strial intervals. The broadly rounded basal thoracic angles will readily identify all three of these species.

Acupalpus Dej.

The American species of this genus are smaller and more abbreviated than most of the European, so far as I can judge, and it is possible that they may some day be separated as a subgenus. To the five species hitherto known, the following three should be added:

Acupalpus subrectus n. sp.—Rather broadly oblong, moderately convex, polished, testaceous, the elytra and head blackish, the under surface of the hind body, excepting the pale epipleura, obscure; head notably large, with moderate though prominent eyes, four-fifths as wide as the prothorax; antennæ slender, obscure, very moderate in length; anterior foveæ narrow, oblique, the central puncture evident; prothorax transverse, nearly one-half wider than long, the sides broadly arcuate, moderately oblique behind, the large latero-basal impressions rounded, smooth and deep, not distinctly punctate; apex broadly, almost rectilinearly truncate, much wider than the base; elytra very nearly one-half longer than wide, parallel and feebly arcuate at the sides, rapidly and obtusely rounded at apex, almost two-fifths wider than the prothorax; striæ somewhat deeply impressed; tarsi short but rather slender. Length 2.6–2.8 mm.; width 0.9–1.0 mm. Northern Illinois (Beverly Hills),—A. B. Wolcott. Three specimens.

The notably large head, with prominent eyes, is nearly as in *hydropicus* and *expertus*, but in the former the size is smaller, the outline more abbreviated, with more inflated elytra and the thoracic sides more strongly oblique; in *expertus* the body is narrower and the prothorax less transverse, among other differences.

Acupalpus curtipennis n. sp.—Oblong, moderately convex, shining, piceous, the prothorax slightly paler; under surface blackish, the epipleura, hypomera and legs flavate; head large, not quite as wide as the prothorax, the eyes moderate, not very prominent; anterior impressions lineiform and, as usual, strongly and outwardly oblique; central puncture distinct; antennæ long, fuscous, the first joint pale, the second piceous; prothorax unusually narrow, only very slightly wider than long, widest near apical two-fifths, the sides moderately arcuate, slightly oblique and nearly straight posteriad, the angles very obtuse and somewhat blunt; outer basal impressions rather narrow, scarcely punctate, the median line deeply impressed but only extending to apical third; elytra parallel and broad, scarcely over two-fifths longer than wide, very obtusely rounded at apex, fully two-fifths wider than the prothorax; striæ smooth, distinctly impressed, the scutellar stria distinct and parallel, moderately long; legs short, the tarsi somewhat longer than usual, slender. Length 2.7 mm.; width 1.1 mm. Northern Illinois. Mr. A. B. Wolcott. One specimen.

The broad elytra, unusually narrow prothorax and large head give this species a very peculiar appearance, unlike any other known to me.

Acupalpus canadensis n. sp.—Suboblong, rather narrow and strongly convex, polished and deep black, the prothorax barely visibly picescent; legs more or less piceous; head three-fourths as wide as the prothorax, strongly convex, with the usual very oblique apical lines, the central puncture feeble or almost obsolete; eyes large but only moderately prominent; antennæ moderately long, gradually a little thicker from base to apex, blackish, paler at base; prothorax fully a third wider than long, widest at anterior two-fifths, the sides distinctly rounded, oblique and straight in about basal half, the angles very obtuse and slightly blunt; latero-basal region sparsely punctate, the impression rounded and at outer fifth; median line moderate but almost attaining the apex, the latter only just visibly sinuate; elytra nearly one-half longer than wide, parallel, with distinctly arcuate sides and rather obtusely rounded apex, barely a third wider than the prothorax; striæ fine, moderately impressed, the scutellar fine and feeble, parallel; intervals feebly convex; hind tarsi very slender and filiform, but much shorter than the tibiæ. Length 2.6 mm.; width 0.85 mm. Canada (Mt. Royal, Quebec). One specimen.

This species is quite distinct from any other known at present in its deep black and unusually convex, polished surface and piceo-testaceous legs.

Stenolophus Dej.

The numerous species of this genus are much larger than those of *Stenocellus* and *Acupalpus*, except in extreme cases, and the body is broader than in either of those genera. The basal angles of

the prothorax are rather widely rounded, and the antennæ and legs are long. The following five species appear to be hitherto unrecorded:

Stenolophus testaceicollis n. sp.—Rather narrower than usual, moderately convex, polished, the head black, the elytra very nearly black, nubilously paler along the sides, the suture also pale, the surface somewhat iridescent; entire under surface and legs and also the entire prothorax pale flavo-testaceous; head well developed, fully three-fourths as wide as the prothorax, notably convex, the anterior oblique sulci coarse, the central puncture distinct but shallow; eyes rather large, moderately prominent, the antennæ long, slender, blackish, the first two joints pale; prothorax only a fourth or fifth wider than long, parallel, the sides broadly arcuate, slightly widest a little beyond the middle, the angles broadly rounded; surface nearly smooth, the latero-basal impressions large, shallow and finely punctate, somewhat punctiform at basal fifth; median line obsolete; transverse impressions feeble; apex subtruncate; elytra three-fourths longer than wide, barely a fourth wider than the prothorax, the parallel sides very feebly arcuate; apex gradually rounding, not obtuse; striæ deep, acute, the scutellar strong, approaching the first; intervals nearly flat, the puncture of the third near the second stria at two-thirds; legs slender. Length 5.5 mm.; width 1.85 mm. Rhode Island (Boston Neck). A single female.

This species is allied only to *ochropezus*, but differs in its narrower outline, quite radically in coloration and in its less obtuse elytral apex.

Stenolophus floridanus n. sp.—Oblong-suboval, moderately convex, in color and lustre throughout as in *ochropezus;* head not quite three-fourths as wide as the prothorax, with rather large and prominent eyes, coarse oblique apical strioles and distinct central puncture, the antennæ long, slender and piceous, the first two joints testaceous; prothorax as in *ochropezus* but more abbreviated, nearly a third wider than long; elytra more oval, the sides gradually rounding behind; striæ coarse and deep, the intervals moderately convex. Length 4.6 mm.; width 1.7 mm. Florida.

Differs from *ochropezus* in its smaller size, slightly more slender antennæ, shorter prothorax, with deeper anterior transverse impression, and in the more rounding sides of the elytra posteriorly, the apex much less obtuse—in fact suturally rather prominent, also in the coarser striæ and narrower intervals.

Stenolophus extensicollis n. sp.—Notably elongate, moderately convex, polished, the elytra with strong iridescent lustre; color rufo-testaceous, the elytra indefinitely blackish discally; under surface blackish, the epipleura and legs rufous; head nearly three-fourths as wide as the prothorax, with large and prominent eyes, the apical foveæ parallel, impressed, not very deep; antennæ slender, fuscous, gradually paler basally, extending to basal fourth of the elytra, the medial joints rather more than three times as long as wide; prothorax scarcely a fifth wider than long, the sides subevenly arcuate, a little more converging basally, the angles broadly rounded; base slightly narrower than the apex, which is very feebly sinuate, with rounded angles; side margins extremely finely reflexed; disk smooth, with some fine feeble ruguliform transverse lines, the

median parts slightly darker than the periphery; impressions subobsolete throughout, the latero-basal parts just visibly and indefinitely impressed; median line fine; elytra parallel, with feebly arcuate sides and obtusely rounded apex, with feeble sinuses, four-sevenths longer than wide and nearly a third wider than the prothorax; striæ smooth, deeply impressed, the scutellar rather long, fine and free; intervals moderately convex, the small discal puncture of the third near three-fourths, adjoining the second stria as usual; male anterior tarsi narrowly dilated. Length (♂) 6.4 mm.; width 2.4 mm. Arizona (Tempe),—Wade. One specimen.

Allied to *anceps*, *peregrinus* and some others, but larger and with much less abbreviated prothorax.

From Tempe, Arizona, I have a large series from Mr. Wade exactly similar to *ochropezus* in every way. It is altogether dissimilar from *extensicollis* and I do not think it could be *gracilis* Csy.

Stenolophus rivularis n. sp.—Oblong-oval, rather convex, polished black, the fine reflexed thoracic sides, also the epipleura and hypomera, testaceous, the legs flavate; head scarcely two-thirds as wide as the prothorax, the moderate eyes only slightly prominent; apical oblique strioles very short, remote from the eyes, the central puncture small, almost obsolete; antennæ long, slender, fuscous, the first two joints testaceous; prothorax nearly a third wider than long, slightly widest beyond the middle, the sides subevenly arcuate, the angles broadly rounded; transverse impressions obsolete, the latero-subbasal impressions large, very shallow and rugose basally; median line shallowly impressed, slightly biabbreviated; apex evidently sinuate; elytra broad, oblong, with rather strongly arcuate parallel sides and rapidly broadly obtuse apex, three-sevenths longer than wide and three-sevenths wider than the prothorax; striæ smooth, moderate, gradually more coarsely, deeply impressed and with convex intervals suturad; puncture fine and feeble, adjoining the second stria slightly beyond two-thirds; scutellar stria short. Length 5.3 mm.; width 2.0 mm. Missouri (St. Louis).

The single male specimen at hand represents a species allied evidently to *humidus* Ham., of which I have a male from West Point, N. Y., but is much more ventricose, with somewhat longer antennæ, distinctly less prominent eyes and more impressed elytral striæ; it is noticeably larger in size.

Stenolophus curticollis n. sp.—Oblong, moderately convex, polished, black, the elytra rufo-piceous; under surface black, the legs obscure testaceous; head only three-fifths as wide as the prothorax, the eyes moderate, not very prominent; antennæ shorter than in *plebejus* and much thicker, the medial joints barely twice as long as wide; prothorax three-sevenths wider than long, the sides subevenly arcuate; basal angles broadly rounded; base just visibly wider than the moderately sinuate apex; surface smooth, the median line fine but rather strong, slightly abbreviated; basal impressions near outer fourth shallow and sparsely punctate; elytra three-sevenths longer than wide, only about a fourth wider than the prothorax, parallel, with feebly arcuate sides and rapidly obtusely rounded apex; striæ fine, barely impressed, the scutellar short and fine but distinct; intervals barely at all convex, similar at apex, the fine discal puncture only very little behind the middle. Length (♀) 5.0 mm.; width 1.7 mm. Maryland (Somerset),—Wade.

This distinct species may be placed near *plebejus* but differs in many ways. The head is a little smaller, the antennæ much thicker, the prothorax shorter and more transverse, with the middle of the apical margin feebly testaceous, and the strial intervals are nearly flat throughout, not narrower and more convex as they are on the subexarate apex of *plebejus*.

Tachistodes Csy.

These former associates of *Acupalpus* and *Agonoderus* are moderately numerous; they are all among the smallest of the Harpalinæ. The three following species I believe to be undescribed:

Tachistodes lyratus n. sp.—Oblong, subparallel, convex and polished, piceous in color, the legs flavate, slender, with short slender hind tarsi; head moderate, but little over two-thirds as wide as the prothorax, with rather small and not notably prominent eyes, coarse oblique apical impressions, finely prolonged to the eyes, and a distinct central puncture; antennæ rather short, fuscous, paler basally; prothorax only a fifth wider than long, gradually slightly narrowed from apex to base, with evenly and moderately arcuate sides; apical angles narrowly, the basal broadly, rounded, the apex barely perceptibly sinuate; surface notably convex, distinctly punctured apically and latero-basally, the basal impressions small, near outer fifth, impressed; median line coarse, not quite attaining the apex; elytra parallel, with feebly arcuate sides and obtusely rounded apex, three-sevenths longer than wide, about a third wider than the prothorax; striæ smooth, coarse and deep, the scutellar extremely short; intervals convex. Length 3.0 mm.; width 1.0 mm. Kansas.

Somewhat allied to *pauperculus* and *humilis*, but with less narrowed thoracic base than in either; *pauperculus* is bicolored and the prothorax in both is more transverse.

Tachistodes obscurus n. sp.—Parallel, polished, piceous-black, the prosternum, epipleura and legs pale; periphery of the pronotum faintly and nubilously paler; head large, four-fifths as wide as the prothorax, with large and conspicuous eyes, the apical impressions as in the preceding, the central puncture subobsolete; antennæ rather short and thick, obscure, the two basal joints pale; prothorax large, a fourth wider than long, widest beyond the middle, the sides rounded, oblique and straight in basal half, the angles very obtuse, rounded; surface punctulate apically and broadly so at base, the basal impressions external and shallow; transverse impressions completely obsolete; apex very slightly sinuate, the median line fine but deep, not attaining the apex; elytra oblong, parallel, with feebly arcuate sides and rapidly very obtuse apex, not one-half longer than wide and only about a fourth wider than the prothorax; striæ rather deeply impressed, but not notably coarse, the intervals evidently convex; puncture between apical third and fourth, adhering to the second stria as usual. Length 3.35 mm.; width 1.4 mm. New York (near the city).

Differs from *indistinctus* Dej., in its broader form, larger prothorax, with more arcuate anteriorly inflated sides, and in the somewhat thicker antennæ, among other differential characters.

Tachistodes convergens n. sp.—Parallel, rather convex, polished and evenly rufo-testaceous, the head slightly more obscure, very moderate in size and scarcely two-thirds as wide as the prothorax, the eyes rather small, only slightly prominent; apical impressions as usual, the central puncture virtually obsolete; antennæ rather long, unusually slender, obscure, paler basally; prothorax between a third and fourth wider than long, inflated beyond the middle and with rather strongly arcuate sides, the latter straight and unusually convergent thence to the base, the angles very obtuse, rather broadly rounded; transverse impressions wanting; surface very sparsely and feebly punctate apically, finely but more strongly basally, the latero-basal impressions rather small, feeble; median line deep, almost entire; apex unusually sinuate, with well-marked angles; elytra one-half longer than wide, only about a fourth wider than the prothorax, parallel, with moderately arcuate sides and circularly rounded apex; striæ deeply impressed, with convex intervals. Length 3.65 mm.; width 1.35 mm. New York (Rockaway Beach, Long Island).

This is a very distinct species in general habitus, inflated and strongly, basally narrowed prothorax, with sinuate apex and less obtuse elytral apex; it may be placed at the end of the series.

PSEUDOMORPHIDÆ

Pseudomorpha Kirby

Of *castanea* Csy., I have recently received four specimens from Utah, a little narrower than the original female type and slightly paler in color; they are all males, having a short and densely ciliate central line on the third and fourth ventral segments; the species is parallel but not so narrow as *angustata* Horn, from Arizona, and has a much larger head, with relatively smaller eyes. The following species is closely allied to *excrucians* Kby., but is larger and parallel:

Pseudomorpha ruficollis n. sp.—Broad, oblong, with parallel sides, convex and highly polished throughout, bright rufous, the elytra black, with the narrowly reflexed margins testaceous; head large, though only four-sevenths as wide as the prothorax, the eyes moderate, only slightly convex; surface with remote but rather strong punctures; antennæ short, compressed and slender, only a fourth longer than the prothorax, testaceous; prothorax short and broad, about twice as wide as long, the sides converging throughout and evenly, moderately arcuate, widely reflexed and, like the elytral margins, with long distinct erect setæ, deplanate about the basal angles, which are very broadly rounded; base a third wider than the broadly sinuate apex, the latter having narrowly rounded angles; surface nearly even, with fine and sparse but distinct punctures bearing erect hairs; scutellum very obtusely angulate behind; elytra four-sevenths longer than wide, scarcely as wide as the thoracic base, the sides parallel and nearly straight; apex abruptly, arcuately subtruncate, without trace of apical sinuses or scutellar stria; surface even, with sparse and rather coarse, subasperulate punctures, forming nine moderately definite series, but finer and confused mediobasally; tarsi not very long but simple, the anterior and middle with a few short coarse hairs beneath; abdomen finely, closely punctate subbasally, more sparsely and subserially toward the sides, the fourth and fifth segments each with a very

short, densely ciliated line centrally in the male. Length (♂) 7.5 mm.; width 3.4 mm. Louisiana (Covington),—Soltau.

This species is undoubtedly closely allied to *excrucians*, but is much larger and parallel in form, not distinctly narrower posteriorly as notable in that species; the elytral punctures, although rather conspicuous, do not seem to be quite so coarse and, instead of two submarginal punctures at each side of the apex of the last ventral, there is here a series of four or five close-set punctures in that position; there is also no trace of a transverse line of setigerous punctures on the two penultimate segments, as related by Horn of *excrucians*, these transversely disposed punctures being fine, confused and not especially setigerous. In this genus there are six abdominal segments, the third and fourth of Horn being really the fourth and fifth. The length of *excrucians*, from Georgia, as given by Horn is 6.5 mm.

STAPHYLINIDÆ

Staphylinus Linn.

The broadly and asexually dilated anterior tarsi constitute one of the most remarkable characters of this genus, which includes the largest species of the family. The two following species are apparently undescribed as yet:

Staphylinus quadraticeps n. sp.—Slender, moderately convex and shining and smoky-black throughout, the legs and abdominal apex not paler; head distinctly longer than wide, perfectly parallel, with straight sides and not very broadly rounded basal angles; surface coarsely and very densely punctate, the punctures separated by fine shining septa; antennæ black, not very thick, the outer joints barely at all wider than long, even on the more compressed side; prothorax as long as wide, scarcely at all wider than the head, the sides parallel and straight; base broadly, circularly rounded, just visibly less than black, the apex truncate, with rather distinct blunt angles; punctures coarse and dense, just visibly separated, with a rather wide entire smooth median line; elytra but slightly shorter than wide, a little wider than the prothorax, the sides feebly flaring; punctures moderate and very dense, the surface subopaque; abdomen very nearly as wide as the elytra, finely, densely punctate and subopaque. Length (♀) 13.0 mm.; width 2.75 mm. Florida (locality unrecorded).

The upper surface has short, rather close and somewhat coarse pubescence, more erect and bristling along the sides and evenly dense and immaculate on the abdomen. This species may be placed near *cinnamopterus*, but differs in its entirely blackish color, still denser and stronger sculpture and entire absence of the transverse apical row of cilia observable in the latter.

Staphylinus triplicans n. sp.—Rather stout and somewhat fusiform, black, the legs pale, the femora black at base; pubescence in general very short and in-

conspicuous; head about as long as wide, subtriangular, with rounded angles, the eyes large, feebly convex, at their own length from the base; surface even, with coarse and deep, separated punctures and a very short central smooth line; antennæ black, about as long as the head, moderately thick; prothorax much wider than the head, barely wider than long, the sides parallel, broadly arcuate, broadly rounded into the rounded base, the apical angles right and evidently rounded; surface shining, coarsely, deeply and closely but discretely punctate, with a short median smooth line near the base; scutellum flat, acutely ogival, with a large, oval and densely velvetly-black spot; elytra distinctly wider than the prothorax, about as long as wide, parallel, with broadly arcuate sides, the surface evenly subæneo-blackish, moderately and densely punctate and finely subscabrous; abdomen at base nearly as wide as the elytra, feebly tapering, finely, closely punctulate and feebly subscabrous above, shining and more strongly, loosely punctate beneath, each segment with a feeble loose silvery pubescent spot near each side; above, each segment has an ogival silvery pubescent spot at the middle of the base and another, wider, basal spot of the same kind near each side, the three series separated by velvety-black basal areas. Length 15.0 mm.; width 3.8 mm. Maine (Eastbrook),—J. H. Emerton.

This apparently very distinct species may be placed near *mysticus* Er., but is easily separated by the general sculpture and by the abdominal sculpture and vestiture.

Euæsthetus Grav.

There are numerous species of this genus, many still undescribed; the following is unusually distinct in coloration and general appearance:

Euæsthetus bicoloratus n. sp.—Narrow, moderately convex, shining, rufopiceous, the prothorax nearly black; head, abdomen above and beneath and about posterior half of the elytra, rufous; pubescence minute, sparse and inconspicuous; head a little wider than the prothorax, deeply but not densely punctate, the eyes moderately large, convex and prominent; antennæ barely longer than the head, slender, the club moderate; prothorax slightly wider than long, the sides subparallel in apical, oblique in basal, half; punctures moderate, rather deep and somewhat close-set; elytra distinctly transverse, with oblique sides, a fourth wider, the suture evidently shorter, than the prothorax; punctures moderate and loose antero-laterally, elsewhere obsolete; abdomen sparsely punctulate, the basal segments feebly, transversely impressed; legs slender. Length 1.2 mm.; width 0.3 mm. Florida (near Indian River).

This is a distinctly characterized species by its coloration and general structure.

CLAVIGERIDÆ

Adranes Lec.

The following species is the smallest and especially the narrowest as yet known to me:

Adranes angustus n. sp.—Narrow, convex, moderately ventricose, testaceous, shining, the pubescence short, coarse and rather sparse; head elongate, the part before the very small subbasal prominences parallel and quadrate, the sides behind

them oblique in basal third, the eyes wanting as in *cæcus;* antennæ short, a little longer than the head, the last joint parallel, gradually narrowing basally and about four times as long as wide; prothorax narrow, nearly two-fifths longer than wide, the sides rounded but subangulate near apical two-fifths, thence feebly converging and slightly arcuate to the base, more oblique and straight to apex; surface sparsely, shallowly punctate, convex, with a deep, post-central and slightly elongate fovea; elytra a third wider than long, with nearly straight oblique sides, about twice as wide as the prothorax, finely, sparsely punctulate; medio-apical tuft of very few hairs evident; abdomen a little longer than wide, oval, the large basal cavity somewhat prolonged medially, with rounded outline. Length 1.6 mm.; width 0.55 mm. Missouri (St. Louis).

Differs from *cæcus* in its narrower form, shorter antennæ, narrow and not regularly pentagonal prothorax, with the discal fovea less posterior, and in the finer and feebler punctuation.

PTILIIDÆ

Dilinium n. gen.

Some suboval, convex, very pallid species, with the prothorax parallel and evenly arcuate at the sides, the surface with two fine subparallel incised longitudinal lines, the elytra long and narrowing behind, seem to necessitate a new genus, which may be allied somewhat to *Millidium*. The eyes are very small and the last palpal joint is enlarged and with an oblique appendage. The anterior and middle coxæ are contiguous, the posterior rather widely separated and the abdomen has six segments, the first and last larger, subequal, the others very short, the fifth still shorter, extremely abbreviated. The following is the type:

Dilinium rhodeanum.—Rather narrowly oblong-oval, convex, shining, pale flavo-testaceous, minutely, not very densely punctate and with very minute pubescence; head large, fully three-fourths as wide as the prothorax, the eyes small, prominent, basal and with a few convex facets; last palpal joint broad, oblong, with an oblique slender apical appendage; prothorax nearly one-half wider than long, the sides subparallel, rather strongly arcuate; surface at each side with a fine incised line at outer third, from just before the middle nearly to the base; scutellum large, rectilinearly triangular; elytra nearly one-half longer than wide, oval, with arcuate sides and rather rapidly obtuse apex, about a third wider than the prothorax. Length 0.55 mm.; width 0.25 mm. Rhode Island (Boston Neck). Numerous examples, very uniform throughout.

Readily distinguishable by the ovoidal form, minute size, pale color, thoracic lines and many other characters. A very closely allied form, probably subspecific, occurs not rarely at St. Louis, Mo.

Ptenidium Er.

The species of this genus are moderately numerous and to be recognized at once by their rather broadly oval form and convex polished surface. The following is the smallest species known to me:

Ptenidium parvulum n. sp.—Rather broadly oval, convex, smooth and polished, black, the antennæ and legs pale, the elytra slightly piceous; punctures minute and very remote, each bearing a minute stiff erect hair; head large, three-fourths as wide as the prothorax, the eyes basal, moderate in size and with numerous facets; prothorax about one-half wider than long, parallel, with regularly arcuate sides, the surface convex, even and with two small rounded perforate punctures, near the base separated by about a fourth the total width; scutellum well developed, equilatero-triangular; elytra about a fifth wider than the prothorax, oval, three-sevenths longer than wide, with arcuate sides, oblique posteriad, the apex narrow, not truncate. Length 0.65 mm.; width 0.33 mm. Mississippi (Vicksburg). Several specimens.

The only species that I can find allied at all closely to this is one from Louisiana, bearing the name *foveicolle* by Mr. Matthews, but this is much broader than *parvulum*, with the prothorax broader, subequal in width to the elytra and with the two foveæ more widely separated.

Nephanes Thoms.

There are several American species of this genus, but the following seem to differ from others in a rather more broadly oblong outline:

Nephanes puritanus n. sp.—Oblong, parallel, moderately convex, shining, but with rather strong but minute, subasperate punctures; color black above and beneath, the legs and antennæ piceous; head large, convex, four-fifths as wide as the prothorax, the eyes basal, moderate and with numerous rather small facets; antennæ about as long as the thoracic width; prothorax two-thirds wider than long, parallel, with evenly and strongly arcuate sides, the punctures close; scutellum equilatero-triangular; elytra only a fourth or fifth longer than wide, equal in width to the prothorax and three-fourths longer, the parallel sides only just visibly arcuate; apex rectilinearly truncate, punctures numerous, the vestiture very short. Length 0.4 mm.; width 0.18 mm. Rhode Island (Boston Neck). One specimen.

A little shorter than a species named for me by Mr. Matthews as *Nephanes titan*, but similar in size, the elytra not quite so abbreviated.

Nephanes vicksburgensis n. sp.—Oblong, parallel, moderately convex, slightly shining, black, closely, asperulately punctate, subgranularly on the even pronotal surface; pubescence short, coarse, pale, subdecumbent and rather close; head nearly three-fourths as wide as the prothorax, the eyes moderate, with numerous rather small facets; antennæ notably elongate, more than half as long as the body, very slender, the first two joints thickest, cylindric, the first somewhat the larger; prothorax three-fourths wider than long, the sides subparallel, distinctly arcuate; apex but little narrower than the base; scutellum large, closely punctulate; elytra about a third longer than wide, rectilinearly parallel, slightly narrower than the prothorax, arcuately truncate at apex; punctures asperulate and close-set. Length 0.65 mm.; width 0.28 mm. Mississippi (Vicksburg).

Much larger than the preceding, with longer antennæ, broader prothorax and shorter elytra.

Ptilium truncatum Csy., should also enter this genus; it is decidedly broader than either of the above species, black, with short truncate rufescent elytra.

Ptiliodina n. gen.

Body pale in color, convex and shining, the surface coarsely micro-reticulate and sparsely punctate, very finely and feebly, more coarsely on the elytra. Eyes very small, basal; antennæ moderate, the first two subcylindric joints notably thick. Prothorax bitruncate, parallel, the base and apex subequal, the hind angles not produced. Scutellum moderate, subequilatero-triangular; elytra oblong-suboval, with arcuate sides and truncate apex. Anterior and middle coxæ subcontiguous, the posterior widely separated, not laminate. Sterna extending to the sides of the body. Abdomen with six segments, the first the largest. The type is the following:

Ptiliodina ochracea n. sp.—Oblong, convex, shining and pale ochraceo-testaceous throughout; head rather more than two-thirds as wide as the prothorax, the latter about two-thirds wider than long; elytra but little longer than wide, the sides parallel and arcuate, at the middle distinctly wider than the prothorax, the apex truncate; pygidium exposed and steeply declivous. Length 0.65 mm.; width 0.23 mm. Rhode Island (Boston Neck).

This is a very distinctly characterized species, moderately abundant and rather constant. The genus may be placed near *Ptinellodes*, but differs in having no vestige of the *Acratrichis* facies seen in the latter.

Ptiliopycna n. gen.

This genus seems to be allied to the last, but the body is very much stouter, parallel and with very minute sparse punctures, the integuments with a system of extremely minute feeble transverse strigilation. The eyes are moderate and coarsely faceted, the antennæ 11-jointed, with a 2-jointed club. The prothorax is noticeably inflated toward base but with simple basal angles, the scutellum large and rectilinearly triangular and the elytra are rectilinearly truncate at tip, covering and overhanging the basal part of the rapidly declivous pygidium. The pubescence is fine, subdecumbent, short and sparse. Anterior coxæ contiguous, the posterior rather well separated and laminate. The metasternum is large but does not extend quite to the sides of the body. The abdomen has six segments, the first large, as long as the next four, which are very short, the sixth longer. The type is the following:

Ptiliopycna quadrata n. sp.—Parallel, convex, shining and black, the under surface more piceous, the abdomen rufescent, the legs pale flavate; head large, rather more than three-fourths as wide as the prothorax, the slender antennæ with the usual two large cylindric basal joints, extending well behind the thoracic base; prothorax two-thirds wider than long, the sides arcuate, less so and more oblique anteriorly; apex distinctly narrower than the base, the surface evenly convex; elytra fully as long as wide, equal in width to the prothorax, the sides parallel and feebly arcuate. Length 0.55 mm.; width 0.32 mm. Michigan (Detroit, —Schwarz.

This species will be recognized readily by the broad and subquadrate convex form, very minute and feeble sparse punctulation, 2-jointed antennal club and laminate hind coxæ.

Ptilium Er.

Pt. fungicola Csy., seems to be a true *Ptilium*, but the very minute *sulcatum*, the type of which was unfortunately shaken from the paper point and irretrievably lost, should quite probably form the type of a distinct genus; the original description and figure will probably serve for identification, if ever recovered.

The following are a few species as yet undescribed:

Ptilium austinianum n. sp.—Rather narrow, parallel, convex, feebly shining, blackish-piceous, the punctures fine, asperulate and rather close, the elytra, micro-reticulate, the pubescence short, subdecumbent; head large, more than three-fourths as wide as the prothorax, the eyes moderate, slightly convex and with numerous moderate facets; antennæ extending but little beyond the prothorax, black, the two basal joints pale; prothorax not quite twice as wide as long, the sides subparallel, moderately arcuate; scutellum moderate, equilateral; elytra not quite one-half longer than wide, parallel, with barely arcuate sides, equal in width to the prothorax, the apex of each rather evenly rounded. Length 0.45 mm.; width 0.18 mm. Texas (Austin). Two specimens.

Easily recognizable by the general form, coloration of the antennæ, sculpture and other features.

Ptilium curticolle n. sp.—Elongate-suboval, convex, shining, brownish-testaceous in color, the punctures fine and subasperate, the pubescence as in the two preceding; head large, fully three-fourths as wide as the prothorax, the eyes small; antennæ piceous, with paler two basal joints, extending far beyond the thoracic base, the club normal; prothorax about twice as wide as long, the strongly arcuate sides converging and arcuate anteriad; scutellum moderate, exactly equilateral; elytra rather long, one-half longer than wide, parallel, with somewhat arcuate sides and broadly rounded apex, about as wide as the prothorax. Length 0.42 mm.; width 0.18 mm. Rhode Island (Boston Neck).

Separable from the preceding by slightly smaller size, pale color, longer elytra and slightly longer antennæ.

The two following species seem to belong to this genus but may possibly have to be generically separated at some future time:

Ptilium shastanum n. sp.—Oblong, parallel, convex and polished, flavo-testaceous; head short, somewhat more than three-fourths as wide as the prothorax, rather smooth; antennæ but little longer than the head and prothorax, slender, very pale flavate, with a moderate loose 3-jointed club; prothorax fully four-fifths wider than long, widest slightly behind the middle, the sides broadly arcuate; surface very smooth and shining, minutely, rather sparsely punctulate; elytra not quite as wide as the prothorax, nearly one-half longer than wide, parallel, with feebly arcuate sides and truncate apex, shining, sparsely, pallidly pubescent and with rather strong and sparse, asperulate punctures; abdominal apex exposed and rapidly declivous. Length 0.65 mm.; width 0.35 mm. California (Siskiyou Co.). One specimen.

Identifiable by the pale color, shining surface and sparse punctures.

Ptilium franciscanum n. sp.—Parallel though not rectilinearly so, convex, piceous in color, rather shining; head short, three-fourths as wide as the prothorax, the antennæ extending well behind the thoracic base, flavate, very slender, with a loose, thicker and piceous club, the erect setæ long and bristling; prothorax three-fourths wider than long, the parallel sides evenly and distinctly arcuate; punctures minute and sparse, the pubescence pale and sparse, relatively rather long; elytra oblong-oval, equal in width to the prothorax, scarcely over a third longer than wide, the sides parallel and evenly arcuate, the apex truncate; surface with distinct pallid pubescence and fine and loose, subasperate punctures; abdominal apex behind the elytra rapidly declivous; under surface pale flavate throughout. Length 0.7 mm.; width 0.4 mm. California (Sta. Cruz Mts.). One specimen, probably taken by Mr. Koebele many years ago.

This distinct species may be recognized easily by the oblong and convex form, rather smooth surface and arcuate sides of the prothorax and elytra. It probably does not pertain strictly to *Ptilium*.

The species which I described as *Acratrichis* (*Trichopteryx*) *longipennis*, seems to be quite distinct and valid; it is still represented by three examples, but the type of *Trichopteryx fungina* is lost, so that I have replaced it by a species occurring in Rhode Island, which seems to fulfill the terms of the description reasonably well. *Acratrichis radicicola*—not *radicola* as originally published—is represented by the type, now having the entire head and prothorax broken off and lost, but some specimens at hand from Beatty, Penn., seem to be virtually typical.

COCCINELLIDÆ

Hippodamia Dej.

The form named *caseyi* by Mr. Johnson, alluded to in Mem. Col., II, is nothing more than a subspecies of *mulsanti* Lec.; it occurs abundantly in Washington State, Oregon and Utah. That form mentioned by the author as being a modification of *convergens* Guér., so abundant in Washington State, and having the post-

scutellar spots united with the scutellar dash to form a 3-pointed star, may be defined as follows:

Hippodamia convergens ssp. **pugetana** nov.—Almost exactly resembling *convergens* in form, size and color, but differing in the extent and disposition of the black marking, which is a little heavier as a rule than in *convergens*, the two post-medial points frequently being transversely united and the two post-scutellar spots joined with the scutellar spot. Length 4.6–6.0 mm.; width 2.7–4.0 mm. Washington State (Fairfield). Nineteen specimens.

In *convergens* there are three small rounded spots before and three behind the middle of each elytron, forming a triangle in each case; the spots are always widely isolated among themselves, that is, at least in every case of a very large series from all parts of the country. *Obliqua* and *politissima* of the Pacific coast are simply varieties, the former without anterior or subapical spots on the elytra, but with the two post-medial spots sometimes loosely united transversally; the latter is wholly spotless. *Uteana* is, I think, a distinct though closely allied species, rather than a subspecies; the markings are as in *pugetana* but heavier, the pronotum never with median white oblique spots and having very narrow white margins.

The following may be regarded as a subspecies of *uteana:*

Hippodamia uteana ssp. **quadraria** nov.—Form, color and fine close punctures nearly as in *uteana*, but rather more briefly oval; pronotum solidly black, with very fine white side-margins throughout; elytra without trace of the small black scutellar spot, each elytron with two circular and clearly defined subbasal spots of black, and one minute and inconstant externally near basal fourth, also a heavy transverse oblique spot behind the middle and one oval and subapical. Length 5.0 mm.; width 3.4 mm. Canada (Edmonton, Alberta),—Carr. One specimen.

The entire absence of a black spot at the scutellum, with the other maculation as mentioned, decidedly heavy, forms a rather notable character.

Hippodamia americana ssp. **fontinalis** nov.—Form and markings nearly as in *americana*, except that the long sutural vitta of that species is replaced by a very short, subapically dilated dash, not extending quite to basal third; pronotum polished, very minutely, loosely punctulate, with two heavy oblique central pale lines and an apical and lateral margin, the latter dilated but little basally, of yellow; elytra opaculate, largely rufous, the broad black median vitta on each ending in slight dilatation at two-thirds, and also with a heavy oblique black spot near the apex. Length 5.0 mm.; width 2.85 mm. New Mexico (Jemez Springs),—Woodgate.

Quite readily distinguishable from *americana* by the very short, rather wide sutural vitta; it is closely allied to *crotchi* Csy., from California, and it seems probable that the two, together with *complex* Csy., may form a true species, distinct from *spuria* and *americana*.

Hippodamia sinuata ssp. **albertana** nov.—Form, coloration and maculation throughout almost as in *sinuata*, but differing in the solid black area of the pronotum, which in *sinuata* is minutely, angularly incised at apex, with heavy diverging white central lines and no trace of medial basal pale marking; in *albertana* the black pronotal area is broadly and feebly sinuate medially at apex, wholly devoid of white marking at the middle and with a small white ante-scutellar marginal spot at base; the oblique apical part of the medial vitta of each elytron is less prolonged and is not so abruptly demarcated as in *sinuata*, the black sutural vitta even longer, gradually evanescent close to the hind angles. Length 5.25 mm.; width 3.0 mm. Canada (Edmonton, Alberta),—Carr.

The true *sinuata* is represented in my collection from Durango, Mexico. The California form, which I named *trivittata*, is much smaller, has subbasally dilated sutural vitta and differs in several other ways, though doubtless not more than a subspecies of *sinuata*.

Neoharmonia Csy.

The name *notulata* of Mulsant, is really a synonym of *venusta* Mels.; but there is a form entirely black, the apical thoracic angles obliquely pale, as also a slightly post-median fascia from inner third of each elytron to the side margin, having two angulate anterior projections; this varietal form was unnamed and I have preserved the name *notulata* in this related form; the following is another:

Neoharmonia centralis subsp. nov.—Much larger than *notulata*, broadly and evenly oval, the head black; pronotum black, the sides yellow, dilated anteriorly and the apex also pale, also a minute pale point on the median line near basal third; elytra deep black, each with a central 3-pointed star, its sides all sinuate; legs black; epipleura pale, with black outer margins. Length 6.0–6.2 mm.; width 4.4 mm. Illinois (about 30 miles south of St. Louis). Three specimens, exhibiting no variability.

This form is recorded as a subspecies, as in the case of the forms of *Olla* and *Anisocalvia* given below, but I have no very clear idea of the true relationship and it can only be said that each form is extremely constant throughout numerous individuals. The proper term to be used is probably not subspecies or variety, but ne of the elemen's of a polymorphic species, although the cause or nature of this polymorphism is entirely unknown to me.

Olla Csy.

The form which I described as *minuta* is given by Mr. Leng as a synonym of *abdominalis*, but it has no such status at all, being a true subspecies to say the least; in fact applying the criteria derived from other Coleoptera, it could be nothing less than a distinct species. The following is another:

Olla abdominalis ssp. **arizonæ** nov.—Form and general coloration nearly as in *abdominalis;* pale straw-yellow; pronotum with seven black spots, the two outer small, widely isolated and circular; elytra with the three subbasal spots of *abdominalis* and, from just before the middle of each to apical third or fourth, a large solid black spot, broadly oval in outline behind and transversely sinuate in front, also in line with its anterior margin a transverse isolated spot near but not quite attaining the lateral margin, also with a very minute imperfect spot at apical fourth and outer fifth, sometimes wholly wanting. Length 5.2–5.3 mm.; width 4.3–4.4 mm. Arizona (near Tuçson),—Tucker. Two specimens.

The constancy in marking of *abdominalis* through very extended series, from Missouri to Central Mexico and the Pacific coast, is indeed remarkable, showing that these various forms attached now to a few type species of this and neighboring genera, have not originated from variation in the ordinary sense.

Cleis Muls.

The following form is closely related to *picta* but differs in some details:

Cleis picta ssp. **nubilata** nov.—Almost similar in form, size and general coloration to *picta*, the two black vittæ of the head disintegrated; pronotum similar in form and in its polished lustre, having four medial spots forming a V-shaped pattern and, just beyond this, a smaller and oblique detached V; besides these markings of deep black, there are only three or four minute points in the nubilous lateral field; the general maculation of the elytra is nearly as in *picta*, but the darker regions are so pallid as to be barely traceable. Length 4.5 mm.; width 3.0 mm. Mexico (Colonia Garcia, Chihuahua),—Townsend.

I have seen only a single specimen of this variation; it is very much larger than *minor*, from the Pacific coastal regions, but all these have very nearly the same form of maculation seen in *picta*.

Anisocalvia Cr.

The following six forms can be attached to *quatuordecimguttata* in some indefinite subordinate relationship, probably of a polymorphic nature.

Anisocalvia lacustris nov.—Oval, strongly and deeply punctate, the pronotum more finely; color deep black, the front pale at each side; pronotum narrowly margined at the sides and apex with straw-yellow, the black median part divided longitudinally by a fine, basally interrupted pale line; elytra uniform deep black, the fine reflexed margins pale, also a small transversely suboval discal spot on each at three-fifths and inner third; under surface black, the abdomen broadly pale peripherally, the legs very pale. Length 4.5–5.2 mm.; width 3.3–3.9 mm. Michigan (Marquette),—Sherman.

Differs very much from *cardisce* in the two very sharply defined subsutural spots behind the middle of the elytra.

Anisocalvia bicordifera nov.—Broadly oval, deep black, shining, the sculpture not so strong or dense as in the preceding; head uniformly black; pronotum deeply impressed along the sides of the disk and also feebly toward base near outer fifth; deep black, with a very fine testaceous margin near the anterior angles only, without other pale marking; elytra very broadly rounded, deep black, without pale edges, each with a large and sharply defined cordate discal yellow spot from before the middle to apical third, subtangent to the suture and extending four-sevenths to the sides; under surface and legs deep black, the inner margin of the epipleura pale, the tarsi also rather pallid. Length 5.35 mm.; width 4.0 mm. New York (Lake George),—Prof. J. F. Kemp.

This is a very obviously distinct form, apparently not at all closely related to the preceding and possibly of specific value.

Anisocalvia vancouveri nov.—Form and coloration nearly as in *lacustris*, but a little larger and with the head black, very finely margined with pale tint; prothorax rather more rounded at the sides than in *lacustris*, and without the even transverse pale apex angularly prolonged posteriorly as in that form, but with the apex black, pale toward the sides, the median line narrowly pale from behind the middle to the apical margin; elytra black, with the two pale eye-like spots as in *lacustris*, though a little larger, but with the fine reflexed margin pale only toward apex, and not throughout the length as it is in *lacustris;* under surface and legs nearly as in *lacustris*. Length 5.25 mm.; width 4.2 mm. British Columbia.

This form can be considered as a variety of *lacustris*, and evidently not of the same taxonomic value as that form, *bicordifera*, *postplagiata*, and perhaps one or two others. The following is related closely to *lacustris* and is of nearly the same taxonomic value as the latter:

Anisocalvia quadrisignata nov.—Broadly oval, shining, the punctures rather finer than usual but of the same character; head very pale, the basal margin of the front black; pronotum black, margined throughout, except at base, with yellow, which is prolonged on the median line to the base, sometimes interrupted subbasally, the yellow margin dilated in a rounded area at base; elytra deep black, the fine reflexed margin pale, less so medially, each with a clearly defined small rounded spot tangent to the base at about inner third, and a slightly larger evenly circular spot at two-thirds near the suture; under surface black, pale peripherally, the legs wholly pale. Length 4.7–5.0 mm.; width 3.3–3.7 mm. Lake Superior (Marquette). Five very uniform specimens.

Differs from *lacustris* and *vancouveri* primarily in the basal rounded spot of each elytron, of which there is no trace in those forms.

Anisocalvia postplagiata nov.—Form rather less broadly oval, shining, with rather stronger punctuation; head as in the preceding; pronotum also as in *quadrisignata* almost throughout; elytra notably different, with pale whitish spots, one at base as in the preceding, three arranged transversely near basal third, of which the innermost is more minute and sometimes almost obsolete; from just behind the middle very nearly to the apex and from near the suture to near the outer margin, there is a large subtriangular pale area, sinuate medially

at its anterior margin and inclosing a narrow black triangle just outside of its centre; reflexed margin pale, sometimes black medially; under surface and legs as in the preceding. Length 4.7–5.4 mm.; width 3.65–3.85 mm. Lake Superior (Marquette). Three specimens.

The three cotypes of this form are virtually constant in every way and very strikingly different in ornamentation from any other development known to me.

Anisocalvia uniformis nov.—Broadly oval, shining, the elytral punctures well separated but unusually strong; head black throughout; prothorax with the sides unusually arcuate, deep black, with pale testaceous margins except at base, angularly prolonged medially to behind the middle and with a small spot at the middle of the base, the pale side margins not at all dilated at base; elytra uniform black, without any form of maculation, the reflexed side margins unusually widely pale throughout the length; under surface and legs deep black, the epipleura pale. Length 5.35 mm.; width 4.0 mm. New York (Adirondack Mts.),—Kemp.

This is rather an isolated form that has been labeled *cardisce* Rand., in my collection for many years, but, on studying the description of that form more carefully, I find that the lateral pale margin of the pronotum is dilated at base and that each elytron has a pale spot at base and three along the lateral margin, and that there are also three spots disposed in triangle on the disk.

In *obliqua* Rand., the elytra are black, each with an oblique testaceous spot. I have a specimen, also taken by Prof. Kemp and labeled "Lake George, Adirondacks," which seems to represent this form. There is on each elytron a slightly oblique reniform yellowish spot, nearer the suture than the sides, rather before than behind the middle of the length and with its outline somewhat more nubilous than usual.

The forms *similis* Rand., of which I have a good series from Marquette, taken by Sherman, and *victoriana* Csy., are both closely homologous with the true *quatuordecimguttata*, and they should all be considered as merely varietally different stages of the same modification, whatever this may prove to be taxonomically.

Neomysia Csy.

The following species is related to *randalli*, described from Lake Superior. It is larger, much more broadly rounded and still more convex:

Neomysia oregona n. sp.—Broadly rounded, very strongly convex, polished and very minutely, loosely punctulate; head and oral organs piceous to blackish, the eyes well developed, transverse, with a small feeble sinus at the middle of the apical margin; antennæ gradually enlarged distally; prothorax with rounded

and broadly, shallowly reflexed sides, brownish-testaceous, with a large trapezoidal area solidly black and about half the total width, the pale parts immaculate; elytra widest a little before the middle, two-thirds wider than the prothorax, pale brownish-testaceous, with nubilous darker markings—a narrow vitta from base to behind the middle near the sides, another similarly narrow vitta from near basal to apical third near outer fourth, another narrow somewhat sigmoid vitta along the median line from the middle to near apical seventh, and a nubilous, broadly vittiform area at about inner fourth, from base almost to middle, with a small terminal macula; sides feebly explanato-reflexed these, as also the suture not maculate; under surface black, with broad pale epipleura, the legs wholly dark brown. Length 7.5 mm.; width 5.8 mm. Oregon (Bull Run, Clackamas Co.),—Mrs. R. R. Kermack.

This is a species which I think could not be confounded with any other; it differs from *randalli* in its paler and less sharply defined dark markings, pale and not black sutural and external edges, absence of the tripartite series of dark areas along the middle of the elytra, entire lack of sublateral discal dark pronotal spot, and still finer and feebler punctuation.

Exochomus Redt.

Many of the described forms in this genus have a mutual taxonomic status analogous to those of *Anisocalvia* in all probability, but they are similarly very constant individually in their various patterns of ornamentation, and it is therefore desirable that separate names should be assigned them. There are some type forms, however, which should be given the full specific status in the present genus; *californicus*, with *desertorum*, *ovoideus*, *parvicollis* and *histrio*, is one of these species, *marginipennis*, with *childreni*, *latiusculus* and several others, another, and the Cuban *venustulus* still another. The following is one of these strange allotropes:

Exochomus ixtlensis nov.—Very broadly rounded, almost circular, polished, very convex and almost sculptureless, black, the anterior thoracic angles finely margined with pallid tint; elytra clear and pale reddish-yellow, with a wide transverse black fascia, its hind margin at the middle rather widely separated from the sides and with its anterior margin angularly extended but not quite to base on the suture, and, on each elytron at the middle of its width, also with a transversely oval large black discal spot, rather distant from apex and subequidistant from suture and margin; legs and under surface black, the almost vertically descending deep epipleura very pale. Length 2.55–2.75 mm.; width 2.0–2.2 mm. Mexico (Ixtla, Morilos),—Wickham.

This form may be placed next to *fasciatus*, but it is much more broadly oval and differs in several other respects.

Hyperaspis Chev.

The two following species cannot be identified with any others in my collection and, so far as I am able to judge, are as yet undescribed:

Hyperaspis tuckeri n. sp.—Oblong-suboval, convex and polished, the punctures not close, very small and inconspicuous; head well developed, wholly pale yellow in the type; pronotum deep black, evenly and rather widely margined with yellow at apex, broadly yellow at the sides, the inner margin of the pale area parallel; elytra deep black, each with a large rufous spot from basal fourth to apical third and from inner two-fifths to outer seventh, without further maculation; under surface black, the anterior and middle legs pale, the posterior nearly black. Length 2.8 mm.; width 2.0 mm. Arizona (near Tucson),—J. F. Tucker.

This species is of an oblong, subparallel form, and may be placed near *lengi* Schf.; it however has much less arcuate sides and quite different elytral maculation.

Hyperaspis uniformis n. sp.—Oval, convex, polished, minutely, sparsely and inconspicuously punctulate; head testaceous in both sexes, moderately developed; prothorax between two and three times as wide as long, the sides converging and broadly arcuate; surface black, with very narrow lateral marginal pale area (♀), or broadly testaceous in about lateral fourth, with narrow apical pale margin (♂); elytra completely black, without trace of paler spots in either sex; in the male type the under surface of the hind body is black, the abdomen broadly margined with testaceous, all the legs rather pale; in the female the abdomen is wholly black and the hind legs are also black. Length 2.6–3.1 mm.; width 1.7–2.1 mm. North Carolina (Southern Pines),—Manee.

At present it would seem best to place this species near *postica* and *elliptica*.

The three following species have a single discal spot on each elytron and may be placed near *binotata:*

Hyperaspis pinorum n. sp.—Oval, convex, polished, black and with unusually strong but loose punctuation; head fully half as wide as the thoracic base, eyes well developed and generally greenish in reflection, the punctures finer and closer; front entirely flavate; prothorax between two and three times as wide as long, with strongly converging and nearly straight sides from above, black, the sides in lateral sixth or seventh and the entire apex flavate, the lateral area parallel; elytra barely (♂) or considerably (♀) longer than wide, very broadly rounded at apex, at the middle evidently wider than the prothorax, each with a very moderate rounded rufous spot from barely before to a little behind the middle and from scarcely within to sensibly without the median line; under surface black, the legs and abdominal margin throughout pale. Length 2.3–2.6 mm.; width 1.7–1.85 mm. North Carolina (Southern Pines),—Manee.

The four specimens at hand are all alike in coloration throughout, and in all probability are males; it however differs from the male of *binotata* in the much more extended pale areas at sides and apex of the pronotum, also in its less broadly rounded outline.

Hyperaspis conviva n. sp.—Larger than the preceding, oval, convex, black and shining, the punctures of the upper surface a little finer, somewhat less distinct and not quite so conspicuous; entire upper surface in the type deep black, except a rufous discal spot on each elytron, transverse in form and differing in position from that of *pinorum*, lying between basal third and the middle and inner two-fifths and outer fifth of the width; head and prothorax formed nearly as in the preceding, the elytra slightly longer and more evenly elliptic; under surface and legs black, the abdomen with a moderate flavate border, obsolete at the middle of the apex. Length 3.1 mm.; width 2.15 mm. North Carolina (Southern Pines),—Manee.

The single type of this species differs from *binotata* in the more elongate-oval outline and especially in the transverse red elytral spots, situated more anteriad.

Hyperaspis maneei n. sp.—Elongate, suboblong-oval, convex, polished, deep black throughout and finely, loosely and inconspicuously punctate, the elytra each with a single large rufous submedial area, from basal fifth to little behind the middle and from inner two-sevenths to the lateral margin; head more than half as wide as the prothorax, the latter of unusual outline, two and a third times as wide as long, the sides moderately converging and slightly arcuate, not quite in continuous curvature with the elytral sides, the apical angles produced, slightly blunt; elytra nearly a fourth longer than wide, evenly oval, obtuse at apex; entire under surface and legs black. Length 3.25 mm.; width 2.2 mm. North Carolina (Southern Pines),—Manee.

The single type of this species is more elongate-oval than in the preceding and with the sides of the prothorax less converging, the apical angles more prominent apically; it differs also very much in the form and extent of the spot on each elytron.

Hyperaspis triplicans n. sp.—Broadly oval, very strongly convex, polished and deep black, the upper surface with fine and sparse but rather deep punctures; head distinctly less than half as wide as the thoracic base, black, with a nubilous yellow spot at the middle of the front in the type; prothorax between two and three times as wide as long, of the usual form, with strongly converging and very feebly arcuate sides, black, the sides in about lateral ninth or tenth testaceous, with the inner margin of this pale area bisinuate, the apex not pale; elytra obtusely rounded, distinctly wider than the prothorax, barely visibly longer than wide, each with three very moderate rounded testaceous spots, one slightly the smallest and at the margin at basal third, another very slightly before basal third, just visibly within the median line and the third at four-fifths and outer third; under surface and legs black or blackish, the tibiæ and tarsi pale. Length 2.7 mm.; width 1.85 mm. North Carolina (Southern Pines),—Manee.

The single type is different from anything hitherto known to me, but the species may follow *notulata* in the list, the arrangement of the three elytral spots being almost similar, but, in that species, there is a small humeral spot, traceless here. The following is closely allied:

Hyperaspis triplicans ssp. **microsticta** nov.—Smaller and more narrowly oval, deep polished black, sparsely and even more minutely and inconspicuously punc-

tate than the preceding; head more piceous-black, narrower; prothorax not so wide, similar in form and coloration, except that the marginal pale area is still narrower, and distinctly narrower at base than apex, with its inner margin more nearly even; elytra obtusely oval, the three spots on each at the same position but smaller, the two anterior minute and difficult to distinguish; under surface black, the legs picescent. Length 1.85 mm.; width 1.2 mm. Locality and collector as before.

I cannot at present determine the true relationship between *triplicans* and *microsticta* and so give them the suggested status; from certain sexual characters observed elsewhere, it would seem that, if not specifically different, *microsticta* should be the female, but it is smaller and narrower than the type of *triplicans;* its elytral spots are extremely small and not distinct as they are in *triplicans.*

Hyperaspis carolina n. sp.—Shorter and relatively broader, very convex, obtusely oval and loosely punctulate; head only moderately wide, testaceous in the type, with greenish eyes; prothorax between two and three times as wide as long, with very converging sides, entirely black, except the narrow side-margins, which are pale and gradually narrowing, obsolete in basal fourth; elytra barely visibly longer than wide, very obtuse, with moderately arcuate sides, each with a very small posterior discal spot as in the two preceding and one, more anterior, at the margin and irregular in form and but little before the middle, also with a very minute, feeble and nubilous spot near the basal margin at inner fourth; discal spot of the two preceding wholly wanting; under surface piceous-black, the tibiæ and tarsi pale. Length 2.3 mm.; width 1.65 mm. North Carolina (Southern Pines),—Manee.

The type is probably a male and represents a species coming near the two preceding, but differing in the incomplete pale thoracic margins, absence of medio-discal elytral spot and presence of one very near the scutellum, untraceable in the others. It seems probable that this is a separate species.

Hyperaspis insolens n. sp.—Very evenly and obtusely oval, shining, deep black, finely but strongly, closely punctate, the elytra rather more feebly and much less closely, the scutellum very finely but unusually closely; head in the type not quite half as wide as the prothorax, the front piceous, with a yellow vitta at each side; prothorax nearly three times as wide as long, the sides very oblique and feebly arcuate; surface wholly black (♂), except a very fine lateral vitta near, but not quite at, the margin and not quite extending to apex or base; elytra evenly and obtusely oval, nearly a fifth longer than wide, each with a small circular rufous spot, the centre of which is very slightly before the middle and about on the median line; under surface, legs, and epipleura deep black. Length 3.2 mm.; width 2.3 mm. Michigan (Grayling, near Bay City),—C. V. Piper. One male specimen.

This is a distinctly isolated species, narrower than *binotata* and with different sculpture and maculation of the anterior parts in the male.

The following is an isolated species among those here described, but it may be placed near the Utah *significans:*

Hyperaspis binaria n. sp.—Oval, polished, black, finely, sparsely and subobsoletely punctulate; head and prothorax moderate, wholly deep black in the type, the thoracic sides strongly oblique and very feebly arcuate; elytra but just visibly longer than wide, at the middle of the strongly arcuate sides about a fourth wider than the prothorax, each with a somewhat nubilously defined small reddish spot, at about the middle and adjoining the side margin, the spot feebly subdivided longitudinally by a feeble line; under surface and legs black, the tibiæ and tarsi paler, piceous, the epipleura pale below the marginal spot. Length 2.4 mm.; width 1.75 mm. North Carolina (Southern Pines),—Manee.

The single type is probably a female.

The following species may be placed near *proba*, but differs very much in having a marginal spot of peculiar form.

Hyperaspis invertens n. sp.—Broadly, obtusely oval, polished, black, very minutely and sparsely punctulate, more closely on the anterior parts; head well developed, distinctly more than half as wide as the prothorax, wholly black in the type; prothorax between two and three times as wide as long, the oblique sides nearly straight, black, abruptly yellow in lateral fifth, the inner margin of the pale area arcuate; elytra barely longer than wide, each with a marginal yellow spot from the humerus to slightly behind the middle, like an inverted comma in form, dilated behind, gradually finely attenuate anteriad, also with three other rounded yellow spots, the centres of which are at a third and inner third, four-fifths and inner third and four-fifths near the margin, this spot attaining the lateral edge and narrower and more oval than the others; under surface black, the legs in great part black. Length 2.8 mm.; width 1.85 mm. Mexico (Gonzales Junc., Guanajuato),—Wickham.

This is a distinct species, but might be placed near *proba* for the present; the sex of the type is probably female.

The five following species belong to the *undulata* section of the genus, but in the first the sides of the elytra have three separate spots:

Hyperaspis separata n. sp.—Oval, strongly convex, black, rather shining, with moderately distant and rather evident punctures, extremely minute on the anterior parts, larger on the elytra; head entirely black in the type, more than half as wide as the prothorax, the latter between two and three times as wide as long, the feebly arcuate oblique sides much shorter than the median line, having a yellow area at each side, parallel in form and less than a tenth the total width; elytra oval, distinctly longer than wide, not very obtuse and evenly rounded behind, each with two small yellowish spots on the side-margin, one a narrow streak from the base for nearly one-third, the other an internally rounded, marginally truncated spot at about the middle; there are also two moderate rounded discal spots, very nearly on the median line, one near basal third, the other near the apex; under surface black, the legs piceous. Length 2.25 mm.; width 1.6 mm. Massachusetts (Natick),—Frost. One specimen.

May be placed next to *lugubris*, but differs in its polished and not alutaceous pronotum, rounded and not elongate-oval discal elytral spots and two widely separated marginal spots, these being united and forming a slender yellow margin in nearly basal three-

fourths in *lugubris*, of which I have a male specimen taken at Tyngsboro, Mass., by Blanchard. The type of *separata* is doubtless the female, but this could not account for such marked divergence in elytral maculation; it is much smaller than my single *lugubris*. In *octavia* Csy., which occurs from Vicksburg, Miss., to Framingham, Mass., there is the same arrangement of the small elytral spots as in *separata*, but there the basal spot at the sides is short and broad, the punctures stronger and the legs black, with very pale tibiæ and tarsi.

Hyperaspis balsasia n. sp.—Small, suboblong-oval, moderately vaulted, polished, black, finely, sparsely punctate; head nearly three-fourths as wide as the prothorax, which is but little more than twice as wide as long, with the sides but slightly converging, broadly arcuate and nearly four-fifths as long as the median line, both deep black, without paler marking; elytra subquadrate, the sides feebly arcuate, rapidly and obtusely rounded at apex; discal rounded whitish spot just before the middle and conspicuous, the outer whitish margin rather wide, entire, turned rapidly inward apically, increasing but little in width very nearly to the sutural margin, finely separated from the apex, its inner edge bisinuate, the posterior sinus the more strongly though obtusely angulate; under surface blackish, the epipleura yellow; legs piceous. Length 1.65 mm.; width 1.1 mm. Mexico (Rio Balsas, Guerrero).—Wickham.

The single specimen, because of its lack of anterior maculation, would seem to be the female; it is one of the smallest in my collection at present, excepting *sexualis*.

Of *bensonica* Csy., I have recently received a specimen, apparently female, but materially smaller than the male type, taken by Tucker, near Tucson.

The following seems to belong to this section, but has subnubilous lateral pale areas and less oval outline:

Hyperaspis nubilatus n. sp.—Parallel and subquadrate, with rapidly transversely rounded and extremely obtuse apex, shining, piceous-black and very minutely, sparsely and indistinctly punctulate, the head two-thirds as wide as the prothorax, black in the type, with the eyes subprominent from above; prothorax two and one-half times as wide as long, with very moderately oblique and slightly arcuate sides, three-fourths as long as the median line, the side-margins narrowly and subequally pale, the apex not paler; elytra as wide as long, quadrate, with feebly arcuate parallel sides, the flanks nubilously and faintly pallid in parallel area in about basal two-thirds; under surface piceous, the epipleura and legs brown. Length 2.0 mm.; width 1.4 mm. North Carolina (Southern Pines),—Manee.

This is a notably isolated species, of which the following seems to be a rather close analogue, however.

Hyperaspis asphaltina n. sp.—Male oblong, parallel, very rapidly and obtusely, transversely arcuate at apex, shining, deep black, finely, sparsely and inconspicuously punctulate; head nearly three-fourths as wide as the prothorax, with

notably prominent eyes viewed dorsally, dull rufous, gradually black basally; prothorax between two and three times as wide as long, the moderately oblique and broadly arcuate sides distinctly shorter than the median line; surface with narrow and parallel, yellow side-margins in the type, the apex not paler; elytra a fifth or sixth longer than wide, the parallel sides nearly straight; surface deep black, without trace of paler maculation at any part. Female distinctly oval, with arcuate sides and broadly rounded apex; head scarcely two-thirds as wide as the prothorax, wholly black, the eyes not so prominent as in the male; prothorax nearly similar but wholly black; elytra broadly oval, evidently longer than wide, deep black and wholly immaculate; inflexed margin finely ridged; hind wings apparently vestigial; under surface and legs piceous to black. Length (♂ ♀) 1.6–2.1 mm.; width 1.18–1.35 mm. North Carolina (Southern Pines),—Manee. Eight specimens.

The pale side-margins of the pronotum in the type of *nubilatus*, by comparison with *asphaltina*, where there is no trace of pallid coloration, shows that *nubilatus*, as described above, is represented by the male. On comparing this with the male of *asphaltina*, there are several radical differences, *nubilatus* being broader, with more arcuate sides, rather smaller head, with less prominent eyes and nubilously pallid elytral flanks, of which there is no trace in *asphaltina*. These two species in fact represent a distinct section of the genus, characterized probably among other ways by less arboreal habits.

The following is one of the most isolated species of the genus, but for the present may be placed in the preceding section:

Hyperaspis sexualis n. sp.—Very small, oblong-suboval, convex, shining, finely, loosely punctate, deep black. Male with the head two-thirds as wide as the prothorax, pale flavate, abruptly deep black in nearly basal third, the anterior line of the black area minutely sinuate at the middle; prothorax more than twice as wide as long, almost parallel, the sides feebly arcuate; surface wholly black; elytra parallel, with moderately arcuate sides and rapidly broadly rounded apex, barely at all longer than wide and a third wider than the prothorax, wholly black. Female larger and more oval, wholly black above, the head four-sevenths as wide as the prothorax, the latter scarcely more than twice as wide as long, the sides very little more converging than in the male, feebly arcuate; elytra longer, oblong, with arcuate sides and broadly rounded apex, slightly longer than wide; under surface black, the legs blackish; tips of the femora, and the tibiæ at tip or throughout, pale. Length 1.3–1.65 mm.; width 0.8–0.95 mm. Utah (St. George),—Wickham. Four specimens.

The head in the male is slightly wider than an elytron; in the female it is correspondingly narrower than an elytron. This is the smallest species of the genus known thus far.

The two following species are somewhat as in *Hyperaspidius* in the type of coloration:

Hyperaspis durangoensis n. sp.—Broadly and obtusely oval, shining, deep black, the elytra rather strongly but loosely punctate, the anterior parts very

finely and more closely; head about half as wide as the prothorax, flavate (♂), wholly black (♀); prothorax two and a third times as wide as long, the oblique sides very feebly arcuate in both sexes, black, with a rather narrow entire flavate side-margin; elytra similar in the sexes, subquadrate, broadly rounded at apex, the parallel sides moderately arcuate, the sides rather narrowly and shallowly, bisinuately flavate, this line flexed inwardly along the base, ending in a rounded dilatation near the scutellum, also flexed inwardly at apex very close to the margin, gradually broadening and obliquely truncate near the suture; from the anterior part of this oblique apex extends a flavate straight line, parallel to the suture, from inner fourth to the median line and ending between basal third and fourth; under surface black, the abdominal tip pallescent, the epipleura pale yellow, the legs brown. Length 2.3–2.5 mm.; width 1.6–1.7 mm. Mexico (Durango City), —Wickham. Two specimens.

This is a remarkably well-characterized species, apparently not allied to any other now known from Mexico, except the following:

Hyperaspis disjunctus n. sp.—More narrowly oval than the preceding, shining, rather distinctly though finely punctured; head black in the type, a little more than half as wide as the prothorax, the latter almost as in *durangoensis* and with similar narrow flavate line at the sides; elytra distinctly elongate, oval, moderately obtuse, each with a triangular pale spot near the base and scutellum and another triangular and widely isolated spot at each humeral angle, also with a larger, transversely triangular spot slightly within the apical margin, its inner limit oblique, this spot continued anteriorly by two narrow lines to barely before the middle, the outer line marginal, the inner near inner third, gradually receding still further from the suture than at its point of origin; under surface and legs black or nearly so, the epipleura pale. Length 2.0 mm.; width 1.3 mm. Mexico (Durango City),—Wickham.

While this species is rather closely allied to the preceding and occurs at the same place, I have no doubt, from what I have learned of the laws of variation in this genus, that it is distinct. It is represented by a single female specimen.

Hyperaspidius Cr.

This genus is composed of a moderate number of species, in general smaller in size than those of *Hyperaspis* and distinguished by narrower epipleura, not impressed for the tips of the femora, as they are in *Hyperaspis*. The following three species seem to be worthy of description at the present time:

Hyperaspidius brevilinea n. sp.—Very short, oblong, moderately convex, shining, finely and inconspicuously punctulate; head fully two-thirds as wide as the prothorax, pale piceous, gradually a little darker basally; prothorax distinctly more than twice as wide as long, the sides only very moderately oblique and feebly arcuate; surface piceous-brown, the sides not broadly yellow, this pale area gradually narrowing and not quite attaining the base; elytra parallel, as wide as long, the sides very moderately arcuate, the apex rapidly transverse and very obtuse; surface black, each with a narrow yellow margin from the scutellum to apical fifth or sixth, there rapidly flexed inward and distinctly dilated, extending not quite to the suture and at a slight distance from the apical edge; at about

inner third there is a narrow yellow dash from basal third to nearly three-fourths; under surface and legs rather dark testaceous. Length 1.7 mm.; width 1.3 mm. Mexico (Saltillo, Coahuila),—Wickham.

The single specimen at hand represents a species not closely allied to any other in my collection. The sex of the type is not definitely known, but it is probably female.

Hyperaspidius mimus n. sp.—Very small, narrow and parallel, polished, minutely, loosely punctulate and only moderately vaulted; head black, with rather prominent eyes, fully three-fourths as wide as the prothorax, which is distinctly more than twice as wide as long, with feebly oblique and very slightly arcuate sides; surface black, with narrow antero-posteriorly narrowed yellow margins; elytra nearly a third longer than wide, only slightly wider than the prothorax, with parallel and feebly arcuate sides and broadly rounded apex; surface with a rather broad and even, whitish line from near the suture at apex, along the apex—very narrowly separated therefrom—along the sides, base and suture continuously to apical fifth, without pale marking other than this; under surface piceous, with pale and rather slender legs. Length (♀) 1.4 mm.; width 0.75 mm. Colorado (Boulder Co.),—Mrs. T. L. Casey.

I have deferred the description of this species for some time, awaiting material additional to the single type specimen, but I now consider it distinct, though allied rather closely to *vittigera* Lec. and *comparata* Csy., from Texas and the middle California coast respectively; it is very much narrower than either of these, although almost similarly marked; the body is narrower and the eyes more prominent.

Hyperaspidius pallidus n. sp.—Oblong, parallel, convex, polished and pale yellowish-testaceous throughout above and beneath; punctures of the head very fine but rather close and deep, of the pronotum very minute and rather sparse, of the elytra small but deeper, larger and much more conspicuous, although sparse; head about three-fourths as wide as the prothorax, the eyes deep black and unusually prominent; prothorax more than twice as wide as long, nearly parallel, the sides distinctly arcuate; elytra almost a third longer than wide, only a little wider than the prothorax, parallel, with feebly arcuate sides, a little more rounded basally, broadly rounded at apex; under surface finely, sparsely punctate. Length 1.75 mm.; width 0.85 mm. North Carolina (Southern Pines),—Manee. A single specimen of undetermined sex.

This distinct species may be placed next to *transfuga*, from Mt. Tom, Mass., but it is a little larger, with pale and not infuscate head, having slightly larger and more prominent eyes, the prothorax much more transverse, being only twice as wide as long in *transfuga*, and with longer and more strongly punctured elytra.

Delphastus Csy.

This is a genus of small and broadly oval or rounded glabrous species, of which *pusillus* Lec., is common and widely diffused in

eastern North America. The following is allied to *pusillus* but is still broader:

Delphastus subtropicus n. sp.—Very broadly rounded and almost hemispherical, deep black and polished, the anterior parts with very faint steel-bluish lustre; punctures minute and sparse; head scarcely half as wide as the prothorax, the latter between two and three times as wide as long, with oblique and feebly arcuate sides; elytra barely as long as wide, subcircularly rounded, at the middle but little wider than at base and slightly wider than the prothorax; under surface piceous, the legs testaceous. Length 1.25 mm.; width 0.85 mm. Florida (Key West),—Schwarz.

Almost similar in size to *pusillus* but more circularly rounded and with feeble steel-blue lustre anteriorly, this being unobservable in *pusillus:* in the latter, also, the under surface and legs are black or very nearly so, and the elytral punctures more minute, sparser and barely evident; the outline of the body is feebly suboblong and a little narrower than in *subtropicus*.

Delphastus violaceus n. sp.—Subevenly rounded and very convex, somewhat smaller and a little less broad than in *subtropicus*, bright steel-blue, the elytra violaceous, highly polished, the punctures minute, sparse and very inconspicuous; head rather more than half as wide as the prothorax, the latter but little more than twice as wide as long, the sides moderately oblique and rather feebly arcuate; elytra very little longer than wide, the sides rounding from near the base to the sutural angles, the humeri slightly and obtusely subtumid; under surface black, the legs slender, flavo-testaceous, the hind femora somewhat infuscate. Length 1.18 mm.; width 0.7 mm. Cuba (Cayamas),—Schwarz.

This very interesting species is evidently allied to *subtropicus* and *pusillus*, but is slightly narrower and with narrowly basally exposed humeri, not evident in the others; it also differs conspicuously in its metallic coloration. The western *sonoricus* Csy., the fourth known species of the genus, is a little smaller than *pusillus* and notably narrower.

Delphastopsis n. gen.

Body rounded, strongly convex and glabrous, feebly sculptured; general characters nearly as in *Delphastus*, but the eyes are much larger, separated by but little more than their own widths and with flatter and relatively smaller facets. Scutellum triangular, similarly well developed. Legs and tarsi nearly similar, the anterior coxæ near the apical margin of the prosternum. Epipleura similarly narrow, deeply but not quite so sharply foveate and not so flat, the external margin descending somewhat. The type is the following:

Delphastopsis amazonica n. sp.—Very broadly rounded, almost hemispherical, polished and deep black; head rather small, much less than half as wide as the

prothorax, the latter about three times as wide as long, the sides strongly oblique and feebly arcuate; punctures fine but rather deep, well separated; elytra scarcely as wide as long, very broadly rounded, the humeri slightly tumid, fully a fourth wider than the prothorax, the punctures so minute, feeble and sparse as to be observed with difficulty; under surface and legs rufo-testaceous. Length 1.45 mm.; width 1.25 mm. Brazil (Obidos),—H. Rolle.

Larger and still broader than *Delphastus pusillus* and the few other species known so far. The following genus also belongs near the preceding and *Delphastus*.

Delphastobia n. gen.

Body broadly oval, strongly convex and glabrous. Eyes narrow, more strongly faceted, separated by between two and three times their widths. Scutellum invisible, except under high magnification, triangular. Anterior coxæ large, extending to the anterior margin of the prosternum, well separated; epipleura narrow, with a large deep excavation at base, the outer margin descending somewhat. Legs short and rather thick, the tarsi short, broad and parallel. Lines of the first ventral extending along the posterior edge of the first segment. The type is as follows:

Delphastobia mexicana n. sp.—Oval, feebly attenuated from the large and slightly tumid humeri to the well-rounded apex, deep black and shining, the anterior parts with very feeble micro-reticulation and with very fine, shallow and sparse punctures; head two-fifths as wide as the prothorax, the latter slightly more than twice as wide as long, with very oblique and feebly arcuate sides; elytra slightly longer than wide, at the tumid humeri distinctly wider than the prothorax, the punctures very minute, remote and in part subserial; under surface and legs deep black. Length 1.7–1.85 mm.; width 1.15–1.25 mm. Mexico (Rio Balsas, Guerrero),—Wickham.

The head has a feeble greenish-metallic lustre. The exceedingly minute scutellum is a remarkable character.

Scymnus Kug.

The species of this genus are all very small, generally oval and more or less pubescent; they are exceedingly numerous in nearly all parts of the world. The following are only the notably distinct species now unnamed in my collection, and there are besides a number of nondescripts, which are so closely allied to others that more time should be taken in their description than I can spare at present:

Scymnus frosti n. sp.—Oval, rather elongate and convex, moderately shining, finely, rather sparsely punctate and with short and not dense ashy hairs; head black, fully half as wide as the prothorax, the latter wholly black, with somewhat

feebly converging and slightly arcuate sides; elytra between a fourth and third longer than wide, oval, somewhat obtusely but evenly rounded at apex, the sides almost continuous with those of the prothorax, black, each with two rufo-flavate discal spots, one parallel in form from inner third to outer fourth, oblique from basal fifth to a little before the middle, the other transversely oval and larger, from inner to outer fifth or sixth and at two-thirds to four-fifths of the length; under surface in great part black, the legs piceous. Length 1.85–2.0 mm.; width 1.18–1.22 mm. Massachusetts (Framingham and Sherborn),—C. A. Frost.

Allied to *ornatus* Lec., from the north shore of Lake Superior, but notably shining, *ornatus* being described as without lustre; there are probably other differences relating to the relative sizes and form of the maculations.

The two following species may be placed near *flavifrons*, *bioculatus* and *bivulnerus:*

Scymnus ludovicianus n. sp.—Regularly oval, convex, shining and black throughout above, except a large rounded testaceous spot on each elytron, from the middle to apical fifth or sixth and from inner to outer sixth or seventh; punctures fine, well separated, the pubescence very short, ashy, loose and inconspicuous; head less than half as wide as the prothorax, the latter between two and three times as wide as long, with oblique and very moderate sides; elytra evenly oval, a fourth longer than wide, at the middle about a fourth wider than the prothorax; supra-humeral umbo small and feeble; under surface black, the abdomen dark rufous, the legs piceo-rufous. Length 1.65 mm.; width 1.1 mm. Louisiana (Alexandria).

The type is a female; it differs from the female of *flavifrons* in the much larger and somewhat more apical elytral spots.

Scymnus aztecanus—Smaller, shorter and relatively broader, black, rather shining and finely, loosely punctate, the ashy vestiture very short, not very close but distinct; head (♂) flavate, slightly more than half as wide as the prothorax, which is but little over twice as wide as long, the moderately oblique sides broadly arcuate; surface (♂) black, with a narrow, basally obsolete testaceous border; elytra not very evidently longer than wide, broadly oval, a fifth wider than the prothorax, with arcuate sides and very obtusely ogival apex, black, each with a moderately transverse flavate discal spot from two-thirds to three-fourths and from inner to outer third or fourth; under surface black, the legs short, flavate. Length 1.2–1.25 mm.; width 0.8–0.85 mm. Mexico (Rio Balsas, Guerrero).

This very small species belongs to the *bioculatus* section, but is still smaller, and the posterior discal spots of the elytra are not circular but transversely subquadrate in form; the head and pronotum in the female are entirely black.

Scymnus emertoni n. sp.—Much smaller and more abbreviated than the preceding, moderately convex, suboblong-oval, shining; head pale flavate in the presumably male type, a little less than half as wide as the prothorax, the latter much more than twice as wide as long, black, with rather wide subeven flavate lateral margins, finely but rather deeply, not densely punctate, the sides feebly oblique, more rounding apically; elytra barely visibly longer than wide, parallel,

with feebly arcuate sides, more rounded at base, the apex broadly and obtusely rounded, about a fourth wider than the prothorax, with small but deep and strong, moderately separated punctures and very short inconspicuous ashy pubescence, each with two conspicuous yellow discal bars, each constricted slightly in its middle, the anterior oblique from inner to outer sixth and from near the humeral callus to four-sevenths, the posterior transverse, more medially constricted and extending from inner sixth virtually to the side margin and from about two-thirds to three-fourths; under surface black, the legs, entire abdomen and epipleura pale flavate. Length 1.2 mm.; width 0.7 mm. Massachusetts (East Gloucester),—J. H. Emerton. A single specimen taken by Mr. Emerton, within a few feet of Hawthorne Inn.

This species also comes in the *ornatus* section, but is very much smaller, more oblong and abbreviated. The transverse elytral bars are sharply defined, very pale and conspicuous.

Scymnus duplicatus n. sp.—Short, oblong, convex, shining, minutely, not closely punctulate and with moderately abundant erect ashy pubescence; head flavate, barely more than half as wide as the prothorax, which is scarcely more than twice as wide as long, with only just visibly converging, broadly and evidently arcuate sides, pale testaceous, blackish in a parabolic area in about median third, extending not quite to the apex; elytra black, as wide as long, quadrate, two-fifths wider than the prothorax, the parallel sides feebly arcuate, more rounding basally; apex gradually broadly rounded; each with a large flavate discal spot before and another behind the middle, both oblique and united longitudinally beyond the median line, the posterior attaining the apical margin near the suture; under surface black, the prothorax, legs and last three ventral segments testaceous. Length 1.4 mm.; width 1.0 mm. Mexico (Gonzales Junction, Guanajuato),—Wickham.

This small species is allied to *suavis*, from northern California, but there the median pronotal darker area is not well defined, the two elytral spots tending to unite internally and the posterior shorter, more transverse and not internally prolonged toward the apex; *suavis* is larger and more evenly oval and is allied rather closely to *coloradensis*, but in the latter the spots are broadly united longitudinally, both internally and externally, and the posterior is very much larger, involving the entire apex.

Scymnus quadrarius n. sp.—Evenly and more narrowly oval, shining, minutely and loosely punctulate and with very short inconspicuous and rather loose dark ashy hairs, black though not very intensely; head in the type flavate; pronotum not quite twice as wide as the head, between two and three times as wide as long, the very moderately oblique sides broadly arcuate; surface black, the apical angles obliquely testaceous; elytra oval, longer than wide, before the middle nearly a fourth wider than the prothorax, each with two very small rounded testaceous spots, one near basal, and the other at apical, third; under surface blackish, the short legs rufous. Length 1.4 mm.; width 0.8 mm. Arizona (Benson, Cochise Co.). One specimen.

This species is allied to *myrmedon* Muls., but is slightly smaller, much more narrowly oval and with the pale elytral spots much

smaller and more nearly of equal size, the anterior spot in *myrmedon* being much the larger. My single specimen of *myrmedon* and the type of *quadrarius* both seem to be males.

The three following species belong to *Scymnus* proper:

Scymnus puritanus n. sp.—Regularly oval, convex, shining, finely, rather closely punctate and with loose ashy pubescence; head testaceous, rather less than half as wide as the prothorax, the latter about two and a third times as wide as long, the oblique sides distinctly arcuate; surface testaceous, with a small dark nubilous area at the middle of the base; elytra slightly longer than wide, evenly oval, at the middle a fourth or fifth wider than the prothorax, black, rufous in about apical third, the anterior margin of the rufous area broadly biarcuate; under surface black, the legs and last two ventrals, as well as most of the prothorax, testaceous. Length 1.8 mm.; width 1.2 mm. Massachusetts (Framingham),—C. A. Frost.

The single male type represents a species allied somewhat to *hæmorrhous* Lec., but it is much smaller; the latter species is similar in general coloration, except that in the male the pronotum is wholly black, except in a lateral area occupying nearly a fourth of the width, narrowing basally; the elytral punctures, also, are very much coarser and more conspicuous than in *puritanus*, in the male of which the penultimate ventral has a very small rounded median impression.

The forms *divisus*, *laurenticus* and *subæneus*, placed as varieties of *hæmorrhous*, prove to be notably distinct species, especially *subæneus*, which bears no close resemblance to it at all. According to the characters given by Fall for *dentipes*, I should be inclined to think that this also is distinct, at any rate my authentic male of *hæmorrhous*, from Indiana—distinguished by its notably coarse elytral punctures—has no trace of the inferior denticulation of the middle femora; *puritanus* is also devoid of any such modification of the middle femora in the male.

Scymnus marinicus n. sp.—Minute, oval, shining and black throughout above and beneath, the legs black; pubescence distinct, obscure ashy and loose; head small, not half as wide as the prothorax, the latter smaller than usual, rather more than twice as wide as long, the rather feebly oblique sides distinctly arcuate, not continuous with those of the elytra; surface rather strongly, loosely punctate; elytra very broadly oval, but little longer than wide, at the middle fully two-fifths wider than the prothorax, with small but rather sharp dorsal humeral tumorosities; surface finely and loosely punctate; legs short and slender. Length 1.25 mm.; width 0.8 mm. California (Fairfax, Marin Co.).

The single type is probably a female; the species is not closely related to any other now known, but it may be placed near *innocuus*, from Nevada.

Scymnus apiciventris n. sp.—Minute, oval, rather shining; male with the head testaceous and barely half as wide as the prothorax, which is two and a third times as wide as long, the sides distinctly arcuate and oblique, very nearly in continuation of those of the elytra; surface rather finely and sparsely punctate, black, testaceous in lateral seventh, this pale area almost disappearing at base; elytra black, very briefly pale at the apical margin, evenly oval, slightly elongate, with small and feeble dorsal subhumeral prominences, finely, loosely punctate, with notably short, obscurely ashy pubescence, not at all dense; under surface black, the prothorax laterally, the last two ventrals and the legs, testaceous. Length 1.2 mm.; width 0.77 mm. Arizona (Benson, Cochise Co.).

This species may be placed next to the preceding, but it is not closely allied to it or any other at present known.

The following is a distinct species of *Pullus*, of notably small size:

Scymnus vicksburgicus n. sp.—Short and strongly convex, almost circular in outline, shining, very finely, rather sparsely punctulate and with very short, sparse and inconspicuous pubescence; body rather uniform pale piceous-brown in color throughout above, the entire under surface and legs pale yellowish-testaceous; head small, distinctly less than half as wide as the prothorax, which is slightly more than twice as wide as long, the median line much longer than the sides, which are moderately oblique and feebly arcuate; elytra not quite as long as wide, the strongly rounded sides almost continuing those of the prothorax, the apices individually rounded, the suprahumeral nodules small and feeble; legs moderate, the femora moderately thick. Length 1.3 mm.; width 1.0 mm. Mississippi (Vicksburg).

The single type specimen represents a species so different from any other that it may be placed by itself at the end of the subgenus *Pullus*, as given in my revision of 1899.

The following are three additional components of this genus, as yet undescribed:

Scymnus mollicultus n. sp.—Minute, oblong-oval, moderately convex, strongly shining, finely, not densely punctate, pale luteous throughout in color, with extremely short, sparse and inconspicuous pubescence; head four-sevenths as wide as the prothorax, the latter distinctly over twice as wide as long, with very moderately oblique and feebly arcuate sides; elytra a fourth or fifth longer than wide, nearly a fifth wider than the prothorax, the sides slightly oblique and very slightly arcuate, rapidly rounding at apex, which is broadly arcuate, the inner angles nearly right, slightly blunt; under surface and legs very pale. Length 1.15 mm.; width 0.6 mm. Northern Illinois (Highland Park).

Allied to *æger* Csy., but a little broader and posteriorly somewhat less attenuate; in the type there is a feeble and nubilously piceous area near the inner basal angle of each elytron, equally separated from base and suture; this is not suggested in any of the three cotypes of *æger*.

Scymnus minutissimus n. sp.—Oblong-oval, more abbreviated than the preceding, pale flavo-testaceous throughout above and beneath, shining, very briefly, sparsely and indistinctly pubescent; head four-sevenths as wide as the

prothorax, the latter between two and three times as wide as long, minutely, remotely punctulate; sides feebly oblique and broadly arcuate; elytra but little longer than wide, broadly and obtusely oval, with arcuate sides, a fourth or fifth wider than the prothorax and finely, sparsely punctate, the umboniform prominence above the humeri very minute and feeble; under surface minutely, sparsely punctulate, the legs short. Length 0.9 mm.; width 0.6 mm. Arizona (Nogales, Sta. Cruz Co.). Two specimens.

This extremely minute species may be placed near *pusio*, from Florida, but differs in its more abbreviated form, less arcuate thoracic sides and other characters.

A specimen, which I took at Bluff Point, Lake Champlain, N. Y., very closely resembles the type of *pusio* and may belong to that species; it is a trifle larger, with very slightly more oblique and less arcuate thoracic sides, but this may have to do with sex, to some extent.

Scymnus distinctus n. sp.—Elongate, parallel, convex, shining, finely and not densely punctate, the pubescence ashy and rather sparse; head and prothorax pale and uniform testaceous, the former less than half as wide as the prothorax and considerably withdrawn, so that it is invisible from above; prothorax evidently more than twice as wide as long, the sides feebly oblique and distinctly arcuate; elytra fully three-sevenths longer than wide, only just visibly wider than the prothorax, parallel, with nearly straight sides and rapidly obtusely rounded apex, black, with a broad yellow transverse fascia at two-fifths, not attaining the sides and interrupted at the suture, extended basally to some extent toward the sides, also with a very oblique, internally obliquely truncate yellow spot from three-fifths to the apical margin, slightly separated from the suture and with its apex spreading along the elytral apex internally to the suture; entire under surface and legs pale testaceous, the epipleura black. Length 1.6 mm.; width 0.8 mm. Cuba (Havana),—Baker.

There is no other species known to me at all resembling this, but I am unable to distinguish any generic structural differences.

The species of this genus inhabiting Utah are rather puzzling; *weidti* has the legs black, only the tarsi pale, the prothorax narrower, about two and one-half times as wide as long; *aridus* has the legs pale testaceous, the femora black in about basal half, the prothorax longer and larger, with less oblique sides and about two and one-half times as wide as long; *mormon* has the legs black, the tibiæ and tarsi testaceous, the prothorax shorter, with more oblique sides and about three times as wide as long; *subsimilis* can be regarded as a less abbreviated variety of *mormon*, which occurs also at Bellevue, Ut.—elev. 3400 feet.

EROTYLIDÆ

Languria Latr.

In the male of *convexicollis* Horn, from California, the first joint of the 6-jointed antennal club is short, strongly eccentric and about twice as wide as long, all the joints strongly transverse; the interstrial surfaces of the elytra are but finely and feebly sculptured, even toward the sides. In both sexes of *interstitialis* Csy., from Utah, the antennal club has five transverse joints, the first, that is, the sixth antennal joint, being much smaller, intermediate between the fifth antennal joint and the first joint of the club proper, only slightly eccentric and but little wider than long, the club in the female differing but little from that of the male, the joints simply being slightly less transverse; the interstrial spaces have coarse and uneven sculpture in the female, much smoother in the male. The synonymy given by Mr. Schaeffer for *interstitialis* is therefore erroneous, for the latter is a different species from *convexicollis*, of which I have a truly typical example at hand. The following is another species, hitherto unpublished:

Languria apiciventris n. sp.—Parallel, rather convex, polished, pale testaceous in color above and beneath, the entire elytra bluish-black, the legs and last ventral segment also black, the latter and the tibiæ with slight rufo-piceous tinge; head fully two-thirds as wide as the prothorax, minutely and sparsely punctulate, the eyes moderate in size and prominence; prothorax barely as long as wide, the apex transversely truncate; parallel sides nearly straight, gradually rounding apically; surface minutely, feebly and sparsely punctulate, the two short oblique basal lines distinct; elytra about three times as long as wide, just visibly wider than the prothorax, the sides very feebly oblique, rounding at apex; striæ unimpressed, composed of rather strong and deep, close-set punctures, becoming minute and subobsolete in about apical third; intervals smooth or nearly so; under surface minutely, remotely punctulate, the legs slender, smooth. Length 7.2 mm.; width 1.75 mm. A single specimen unlabeled in the Levette collection, but probably from Colorado.

This is a notably distinct species, which may be placed near *mozardi*, but broader, with shorter prothorax and different coloration, the abdomen having the last three segments abruptly black in *mozardi; apiciventris* differs principally, however, in antennal structure, the antennæ in the type extending to basal fourth of the prothorax, with a long parallel 6-jointed club, nearly twice as long as the antennal shaft. The type is probably a female.

The species *thoracina* Csy., of the published lists, is not the same as *divisa* Horn; in the latter the pronotum is transversely black from side to side in less than basal half, while in *thoracina* there is only a rounded and nubilously defined disco-basal spot of

quite different character; the latter differs also in the form of the antennal club as formerly stated, this difference is not sexual, as surmised by Mr. Schaeffer.

Tritoma Fabr.

The species of this genus are numerous, and the two following are different from anything previously known:

Tritoma pallens n. sp.—Oval, convex, shining and uniform pale testaceous throughout, glabrous as usual; head three-sevenths as wide as the prothorax, very minutely, loosely punctulate, the eyes moderate, rather convex; antennæ moderate, the first two joints slightly inflated, the 3-jointed club rather thick, loose; prothorax nearly four-fifths wider than long, the sides moderately oblique and slightly arcuate; surface very minutely, sparsely punctulate; elytra rather more than one-half longer than wide, scarcely a fifth wider than the prothorax, the sides a little more rounded between basal third and fourth, gradually and obliquely rounding thence to the evenly rounded apex; striæ fine and feebly impressed, finely and closely punctate; sterna very finely, sparsely punctulate. Length 3.5–3.9 mm.; width 1.8–2.15 mm. North Carolina (Southern Pines),—Manee. Three specimens.

This species is not at all closely allied to any other, but may come after *sanguinipennis*. The tibiæ are moderately inflated externally toward apex, the two anterior conspicuously so in the male.

Tritoma pinorum n. sp.—Suboval, not very broad, convex, polished, pale testaceous throughout, excepting the entire elytra, which are deep black; punctulation extremely minute and sparse, a little more evident on the pronotum, still more evident toward the sides; head half as wide as the prothorax, the eyes very moderate, somewhat convex; prothorax about two-thirds wider than long, the sides very moderately oblique, feebly arcuate, a little more so apically; base broadly lobed in the middle, less narrowly than in the preceding, with apex feebly sinuate; elytra somewhat less than one-half longer than wide, at about basal fourth slightly wider than the prothorax, the sides broadly arcuate, a little more rounded at apex; surface with extremely minute, sparse punctulation; striæ not very fine, distinctly impressed and with small, rather close-set punctures; tibiæ narrowly triangular, not so broadly dilated apically as in the preceding. Length 3.2 mm.; width 1.7–1.75 mm. North Carolina (Southern Pines),—Manee. Two specimens.

Allied to *affinis* and *nigripennis*, but distinct from the former in its much broader outline and larger, less abbreviated prothorax; from the latter it differs in its narrower and laterally less arcuate prothorax, narrower form of the body and more highly polished integuments; the punctulation is less evident and the eyes somewhat less prominent; *nigripennis* occurs at Palm Beach, Florida.

Tritoma evanescens n. sp.—Small, regularly oval, convex, polished, the anterior parts faintly alutaceous; upper surface testaceous, the entire elytra deep black;

under surface and epipleura deep black, the abdomen pallescent and piceous apically, the prothorax and legs testaceous; head evidently less than half as wide as the prothorax, nearly two and one-half times as wide as the median length, the notably oblique sides nearly straight; apex sinuate; base with narrow truncate median lobe; surface very finely, sparsely punctulate, barely at all more evidently so toward the sides; elytra slightly less than one-half longer than wide, very evenly ogival in form, with narrowly blunt common apex and, near the base, very little wider than the prothorax; striæ fine and very faint, barely traceable, the punctures extremely minute, feeble and indistinct; tibiæ slender, only very feebly dilated distally. Length 2.7 mm.; width 1.65 mm. Louisiana (Alexandria).

A very distinct species, among the smallest known and with very indistinct elytral striæ; it may be placed near *atriventris* Lec., of which I have a typical specimen from Texas, but it is very much smaller, with shorter prothorax, having the similarly very oblique sides more nearly straight and with subobsolete and not distinct, elytral striation.

Triplax Hbst.

This will also prove to be a rather large genus, of which a considerable number have been described. In the Leng list *mormonalis* Csy., is said to be a synonym of *mesosternalis* Schf.; this is a gross error, as there is no resemblance between these two species and, if memory serves, it is *monostigma* Csy., that Mr. Schaeffer united with the latter species. Two specimens of *mesosternalis*, from the typical locality in Arizona, sent to me by Mr. Schaeffer, when compared with the two cotypes of *monostigma*, show, however, that this is by no means the same as *mesosternalis* but a different species. In *monostigma* the head is smaller and the antennæ shorter, but, especially, the eyes are smaller and globularly more prominent than in *mesosternalis*, the prothorax shorter and without the distinctly marked lateral spots, or with the merest suspicion of them, and with the punctures of the elytral striæ more separated.

The following are two additional species belonging to this *mesosternalis* group:

Triplax coloradana n. sp.—Body colored as in the two species mentioned, highly polished and not quite so elongate; head and eyes as in *mesosternalis*, the antennæ not so long, especially in the female, and with narrower club in both sexes; prothorax much less abbreviated, only half to three-fifths wider than long, the feebly oblique sides much more strongly, evenly arcuate, similarly punctate and with a black spot at the middle of the apex, the sublateral spots wanting, or minute and very faint; elytra slightly more than one-half longer than wide, barely visibly wider than the prothorax, the feebly arcuate sides slightly more oblique; striæ feebly impressed, strongly and closely punctate; under surface subsimilarly punctate. Length 3.8–4.0 mm.; width 1.8–1.9 mm. Colorado (Littleton). Two specimens.

Distinguishable easily from *mesosternalis* by the less developed antennæ, from *monostigma* by its less prominent eyes, and from both by its distinctly less abbreviated and laterally somewhat more arcuate prothorax and relatively less elongate elytra.

Triplax carri n. sp.—Smaller, more broadly oval and with more inflated elytra and smaller and more slender antennæ than any of the three species above mentioned, polished, testaceous, the elytra black, the pronotum with a rather nubilous black spot at the middle of both apex and base, without lateral spots; head and eyes well developed, minutely, sparsely punctate; antennæ very slender and pale testaceous, the abrupt club blackish and moderate in width; prothorax fully two-thirds wider than long, finely and sparsely punctate, the sides oblique and straight, rounding apically; elytra slightly more than one-half longer than wide, oval, just behind the dorso-humeral callus about a fifth wider than the prothorax; striæ fine and feeble, gradually subobsolete behind, finely and less conspicuously punctate, the intervals flat, very minutely, remotely punctulate; under surface black, the legs and prothorax testaceous, the abdomen in great part rufous. Length 3.25–3.7 mm.; width 1.75–2.0 mm. Canada (Edmonton, Alberta),—F. S. Carr. Four specimens.

Separable very readily from the three preceding species by the smaller and very slender antennæ, with bright testaceous shaft, by the medio-basal as well as apical black pronotal spot, by the black and not testaceous mesosternum and numerous other characters.

The following species belongs to the *thoracica* section of the genus:

Triplax frosti n. sp.—Rather broad, oblong-oval, convex and polished, testaceous above and beneath, the entire elytra black, the scutellum rufous; head evidently less than half as wide as the prothorax, the eyes rather small and moderately convex; front sparsely, distinctly punctate; antennæ short, a little longer than half the thoracic width, somewhat fusco-testaceous, the abrupt club loose, black and rather wide; prothorax very nearly twice as wide as long, the sides moderately oblique, very evenly and not strongly arcuate; basal lobe somewhat broadly rounded; punctures sparse and moderate, gradually stronger but well separated toward the sides; elytra barely one-half longer than wide, not distinctly wider than the prothorax, parallel, obtusely rounded at apex; striæ moderate suturally, coarser and more impressed laterally, strongly and closely punctate; intervals loosely punctate, the abdomen more closely and finely. Length 4.0–5.0 mm.; width 2.0–2.6 mm. Massachusetts (Hopkinton),—C. A. Frost. Three specimens.

Differs from *thoracica* in its shorter, broader form, shorter antennæ and more impressed and laterally coarser elytral striæ; the legs, are shorter, the thoracic sides less arcuate and the antennal club relatively larger than in *latiuscula*. As in other allied species, there is considerable individual diversity in size.

COLYDIIDÆ

Redistes n. gen.

The body in this genus is small, rectilinearly parallel and strongly convex, coarsely sculptured and nearly glabrous. The head is moderate, rather short, with moderate and somewhat coarsely faceted eyes. Antennæ rather short, 11-jointed, the first two joints swollen, the club abrupt and loosely 3-jointed. Prosternum long, narrowly separating the moderate and basal coxæ, transversely biimpressed at apex. Abdomen 5-segmented, the segments equal in length, free, the sutures deep. Legs moderate, rather slender, the tarsi 4-jointed, subcylindric, the last joint longer than the first three combined. The type is the following:

Redistes cylindricus n. sp.—Cylindric, the sides parallel and straight; surface convex, polished, uniform rufous in color; punctures throughout coarse, well separated, each with a short stiff erect seta, the punctures in even loose, unimpressed lines on the elytra; head about three-fifths as wide as the prothorax; antennæ arising at the anterior margin of the eyes; prothorax a fourth or fifth longer than wide, with perfectly parallel straight sides, rounding slightly and briefly at apex, which is arcuato-truncate and as wide as the base, the latter broadly arcuate, the angles obtuse and blunt; surface evenly convex, the rather coarse deep punctures somewhat unevenly separated but, as a rule, by about their own widths; scutellum small, free, transversely oval; elytra twice as long as wide, barely visibly wider than the prothorax, straight and parallel at the sides, the apex rapidly circularly rounded; sutural series impressed, coarsely so apically; inflexed sides moderate in width to the apex and with a raised flat inner margin throughout. Length 2.6 mm.; width 0.75 mm. North Carolina (Southern Pines),—Manee.

It is quite possible that this species may form a subfamily group between *Oxylæmus* and the Pycnomerinæ. The last palpal joint is moderate, swollen basally and obtusely attenuated apically.

Bothrideres Er.

The following species is allied to *geminatus*, but has a narrower, more unevenly punctate and less impressed prothorax:

Bothrideres arizonicus n. sp.—Elongate, rather depressed, piceous and somewhat shining, the suberect hairs somewhat fuscous and rather short; head small, with prominent eyes, scarcely two-thirds as wide as the prothorax, the antennæ short, with the usual abrupt 2-jointed club, the terminal joint notably small; prothorax a fourth or fifth wider than long, the sinuate apex with prominent angles, about a third wider than the base; sides feebly arcuate, with a minute tooth distinctly behind the middle, the basal angles similarly denticulate; surface flattened, not evidently impressed, coarsely, irregularly and loosely punctate, with a smooth convex spot medio-apically and another, elongate, near the middle; elytra twice as long as wide, one-half wider than the prothorax, gradually attenuate from slightly before the middle, the sides parallel and straight thence to the

rounded humeri; striation nearly as in *geminatus*, but more shallow and with the punctures throughout smaller and less conspicuous. Length 3.9–4.3 mm.; width 1.15–1.22 mm. Arizona (locality not recorded). Four specimens.

This species differs from *geminatus* as stated; from *montanus* Horn, it differs in its smaller size, less impressed and more sparsely punctate prothorax and relatively wider elytra among other characters. Another species, *cactophagi* Sz., is mentioned in the Leng Catalogue, but I cannot find that it has been described, the reference after the name is "99–10; Arizona." In Proc. Ent. Soc. Wash., Vol. IV, p. 293, there is a *Bothrideres* mentioned, in connection with remarks on the Cacti, but not described, and I can find no further reference to it; the 10 after 99 would seem to refer to a page number, but it cannot be traced.

Bitoma Hbst.

This is a rather large genus of small slender parallel opaculate species, having costate elytra; they are sometimes rather closely allied among themselves, but the two following seem to be undescribed:

Bitoma trinotata n. sp.—Rather broader than usual, parallel, moderately convex, dull brownish-black and subglabrous, each elytron with three small transverse and rather nubilously defined rufous spots, the posterior more oblique; head slightly trapezoidal, with well-developed but not very prominent eyes; surface strongly, very densely punctate; antennal club small, rather narrow, loose as usual; prothorax transverse, three-fourths wider than long, the sides straight, very feebly oblique, very finely serrulate; surface nearly flat, strongly, very densely punctate, with two equal parallel discal carinæ at each side; they are outwardly arcuate in about anterior half; elytra three-fourths longer than wide, parallel, with nearly straight sides, circularly rounded at apex and about a fifth wider than the prothorax, with double series of coarse and deep, close-set and well-defined punctures, the five separating ridges—one at the suture—all very distinct. Length 2.7 mm.; width 0.85 mm. Missouri (St. Louis).

May be placed near *ornata*, but differs primarily in the three and not two larger rufous elytral maculæ.

Bitoma sobrina n. sp.—Parallel, opaque, feebly convex, smoky-black and uniform, the elytra not at all maculate; head shorter than wide, trapezoidal, moderately and densely punctate, with moderate eyes; antennæ short, piceous, the club rather thick and abrupt; prothorax short, densely punctate, not quite one-half wider than long, the sides feebly oblique, very slightly arcuate and with unusually widely separated minute serrules; two sublateral ridges subequal and rather prominent; median flattened or subconcave area with a subtriangular basal elevation, the apical margin minutely bituberculate; elytra not quite four-fifths longer than wide, parallel and straight at the sides and subevenly rounded at apex, slightly though evidently wider than the prothorax, the ridges rather fine but prominent; punctures of the double series strong and deep; elevated line of the suture oblique in basal fourth to the base at each side of the

scutellum—the usual structure in the genus. Length 2.3–2.7 mm.; width 0.65–0.8 mm. North Carolina (Southern Pines),—Manee. Four specimens.

Decidedly different from any other species known to me by the uniform fuliginose surface. The interspaces separating the elytral punctures are sometimes slightly shining.

Endeitoma Shp.

It seems worth while to maintain this group of species as a genus distinct from *Synchita;* the general habitus of the body is entirely different. A number of species have been discovered more or less recently, among which the following may be described at present:

Endeitoma floridana n. sp.—Perfectly parallel, with straight sides, moderately convex and with the interspaces between the punctures rather shining; piceo-rufous in color, the pubescence sparse and inconspicuous, erect; head moderate, three-fifths as wide as the prothorax, the eyes very moderate but prominent; surface coarsely, granularly punctate; prothorax a third wider than long, the sides parallel, rather coarsely, crenulately serrate; apical angles moderately prominent; surface coarsely, densely and rugosely punctate, the bottoms of the punctures shining; elytra exactly equal in width to the prothorax, with parallel straight sides and subcircularly rounded apex, very nearly twice as long as wide; punctures coarse, deep, close-set in subimpressed even series, the intervals shining. Length 2.8–3.1 mm.; width 0.85–0.9 mm. Florida (Lake Worth). Three specimens.

Related to *granulata* but narrower in build, with rather more conspicuous polished spaces between and within the punctures, smaller head, with smaller and more prominent eyes, rather coarse thoracic sculpture, with larger and less numerous lateral serrules and several other characters. It does not seem to be closely related to *dentata* Horn, from Tampa. My two examples of *granulata* are from Pennsylvania and North Carolina (Southern Pines).

LYCTIDÆ

Lyctus Fabr.

Individuals in some of the species of this family vary to an extreme degree, either in size as in *parvulus*, or in relative slenderness of the body. The two following have been in my collection for many years, but I have been unable to identify them and so describe them as new as follows:

Lyctus brevipennis n. sp.—Unusually abbreviated, moderately convex, the head and prothorax subequal in width and only as wide as a single elytron; surface not shining, rather closely punctate, the pubescence pale, short, coarse and moderately close, forming also about five narrow dense lines on each elytron;

head fully as wide as the prothorax, the eyes well developed and prominently convex; antennæ extending to about basal fourth of the prothorax, the second joint of the club distinctly narrower than the first; prothorax narrow and subcylindric, about a fourth longer than wide, the angles not at all prominent; sides feebly arcuate; surface evenly convex, not more than vestigially impressed along the middle; elytra shorter than usual, barely more than twice as long as wide, with two series of rather strong deep punctures separating the pubescent lines. Length 2.5 mm.; width 0.75 mm. District of Columbia.

The type may or may not be an importation, and it is to be regretted that there is not more than one specimen at hand.

Lyctus rectangulus n. sp.—Parallel, moderately convex, evidently shining, piceous-brown, the elytra somewhat paler; punctures rather fine, well separated, arranged without distinct order on the elytra; pubescence subdecumbent, the hairs rather short, thick and somewhat abundant; head large, shorter than wide, very nearly as wide as the prothorax, the eyes very moderate in size and not very prominent; antennæ extending only about to the middle of prothorax, the latter quadrate or sometimes very little wider than long, the sides just visibly converging from the narrowly rounded and not at all prominent apical, to the nearly right and very sharp basal, angles, straight, never sinuate; surface flattened or faintly concave medially, having a deep foveiform puncture at the middle of the base; elytra two and a third to half times longer than wide, with parallel, nearly straight sides and circularly rounded apex, barely perceptibly wider than the prothorax, the punctures small, close, the surface with three or four fine, smoother, flat and inconspicuous lines. Length 2.6–2.8 mm.; width 0.65–0.75 mm. Texas (Brownsville),—Wickham.

This species is represented by six unusually uniform specimens; it may take its place apparently near *parallelopipedus*, but it is a smaller and more abbreviated form, without the prominent anterior thoracic angles of that species.

MYCETOPHAGIDÆ

The following genus is placed provisionally in this family, because of general resemblances, but it differs so greatly in many of its characters as to constitute at least a subfamily group:

Lendomus n. gen.

Body oblong-oval, rather convex, glabrous and shining. Head rather small, with well-developed and moderately faceted eyes, the front without transverse suture but transversely tumid at apex. Mandibles very arcuate, pointed, somewhat uneven within. Mentum transverse, trapezoidal, medially obtusely lobed at apex, the palpi with the last joint abruptly swollen, evenly oval and with a small axial terminal appendage. Antennæ inserted a little before the eyes, rather thick, 11-jointed, the outer five joints constituting a loose elongate, not abruptly formed club. Prosternum very

narrowly separating the coxæ, the cavities widely open behind; hind coxæ almost contiguous. Abdomen with five segments, the first very short, only distinct in the angle between the coxæ, the others longer, equal, convex and separated by deep impressed sutures. Legs moderate, the tarsi all 5-jointed, rather long and slender, the claws arcuate and simple.

These characters represent a genus heretofore wholly unknown to me. The antennæ resemble those of *Mycetophagus*, but the glabrous body, the palpi and tarsi are wholly at variance. The type species is the following:

Lendomus politus n. sp.—Parallel, oval at the extremities, deep black and highly polished, with piceous antennæ and palpi; glabrous head three-sevenths as wide as the prothorax, moderately and loosely punctate; antennæ as long as the head and prothorax, rather thick, claviform as related, the third joint obconic, not quite twice as long as wide, much longer than any of the succeeding joints; 7 a little, 8–11 much, wider than long; prothorax nearly four-sevenths wider than long, finely and remotely punctate, sparsely but more distinctly toward the sides, which are very finely margined, feebly oblique, evenly and very moderately arcuate from base to apex, the latter sinuato-truncate; basal angles obtuse but sharp; scutellum moderate, equilatero-triangular, smooth; elytra four-fifths longer than wide, barely at all wider than the prothorax, obtusely and parabolically rounded in about apical third, the sides parallel and straight thence to the base; striæ moderate, very feebly impressed and with rather small but distinct, close-set punctures, the intervals and also the abdomen smooth; legs moderate, the tibiæ with a few external erect bristles. Length 4.6 mm.; width 1.7 mm. A single specimen from the lower St. Lawrence Valley in Quebec.

Readily recognizable by the polished surface, Mycetophagid antennæ, peculiar palpi, 5-jointed tarsi and many other structural peculiarities.

DERMESTIDÆ

Dermestes Linn.

The following species somewhat resemble *nubipennis*, but is much narrower and differs also in the vestiture and structure of the abdomen.

Dermestes mormonalis n. sp.—Narrow, parallel and strongly convex; pronotum unevenly clothed with stiff fulvous hairs, variegated with subglabrous spaces, of which four small rounded spots are in transverse line near the apex; scutellum with dense coarse white hairs, not as long as those of the pronotum; elytra densely and deeply punctate, with short and rather coarse, dense whitish hairs, having a few subglabrous spots, especially toward apex; inferior thoracic surface with short loose, dark and inconspicuous pubescence, the sterna with very dense white vestiture, also the hind coxæ, trochanters and a narrow medial femoral band, the abdomen with finer, sparser hairs, obscure in color but more whitish medio-basally, the hind segmental margins with a few minute whitish points, the surface even; antennæ short, the three-jointed club unevenly elongate-oval; prothorax transverse, rounded, truncate at base with large rounded median

lobe; elytra not quite twice as long as wide, equal in width to the prothorax. Length 6.6 mm.; width 2.8 mm. Utah (Vineyard),—Spalding.

Allied more nearly to *nubipennis* Csy., than to any other species, but differing as above stated, also in the less abbreviated and more obscure, dense vestiture of the elytra, also in the even abdominal surface, the two penultimate segments being strongly foveate centrally in that species.

Trogoderma Latr.

The following is the largest, or at least the heaviest, species known to me at present:

Trogoderma ajax n. sp.—Stout, oblong-oval, convex, somewhat shining, piceous, the elytra each with a large pale spot obliquely from behind the humeri to about the middle, narrowing and approaching the suture; also with a large uneven subapical pale spot and some finer feeble median maculation, the pale areas with short whitish vestiture; head barely over a third as wide as the prothorax, the latter very little over twice as wide as long, the sides converging and arcuate, the basal lobe very moderate in size; punctures fine and well separated; elytra not quite one-half longer than wide, very little wider than the prothorax, the punctures fine and rather widely separated; legs short and slender. Length 3.9 mm.; width 2.2 mm. Utah (Vineyard),—Spalding.

Not closely related to any other described species, but it may be placed near *pollens* for the present, though much stouter in form.

OSTOMIDÆ

Ostoma Laich.

I have recently received from Mrs. Hippisley, of Terrace, British Columbia, several interesting members of this genus, including two specimens of *nigrina*, one—very small and more abbreviated than usual—of *pippingskœldi* and two that seem to constitute an undescribed species, as follows:

Ostoma columbiana n. sp.—Rather narrowly oblong-oval, moderately convex, moderately, the elytra strongly, shining; pale red-brown in color and glabrous as usual; head rather small, much less than a third as wide as the prothorax, densely punctate, the front broadly bitumorose; antennæ somewhat longer than the width of the head, piceous, the broad club in great part testaceous; first joint large, arcuately triangular, the second small, attached at the inner angle; prothorax with deep anterior sinus, two and one-half times as wide as the median length, the sides strongly oblique and nearly straight, rounding basally; surface closely, strongly, evenly punctate, very broadly reflexed at the sides, the broad concavity sparsely punctate, finely so externally; scutellum transversely oval; elytra oblong, three-sevenths longer than wide, as wide as the prothorax, the parallel sides gradually rounding and ogival behind about the middle; sides broadly reflexed and explanate throughout; surface with the suture and six discal ridges distinct, the concavities between the ridges deeply, transversely punctate, the abruptly sloping flanks coarsely and closely punctate, with an

external line of coarser punctures limiting the smaller remote punctures of the rather less shining reflexure. Length 7.4–8.3 mm.; width 4.2–4.7 mm. Two specimens. British Columbia (Terrace).

Related to *ferruginea* Linn., but smaller and much narrower, with straighter oblique sides of the prothorax, more sparsely punctate lateral concavities formed by the reflexed sides and with numerous other differences.

CRYPTOPHAGIDÆ

A considerable number of undescribed species have accumulated in this family but, as most of them are obscure forms, I have only brought forward a few distinct things at the present time.

The genus *Planismus*, which I assigned originally to an over-generalized Cucujidæ, belongs properly to the Cryptophagidæ, in the vicinity of *Cryptophilus*.

Tomarus Er.

There is some diversity of opinion regarding the name of this genus. In the Leng list of Coleoptera the species come under the designation which I here adopt, but in the still more recent catalogue of Schenkling, it is named *Toramus* Grouv. It is to be inferred from this that *Tomarus* Lec., under which we have known the species, is not the same as *Tomarus* Er., and was therefore renamed *Toramus* by Grouvelle, as being a preoccupied name.

Tomarus quadrinotatus n. sp.—Notably elongate, suboval, narrow and acuminate behind, shining, finely and very feebly punctate, piceous, the under surface and legs paler; elytra black, each with two large and subtransverse, clearly defined flavate spots, neither extending to the suture, the anterior near basal fourth, the posterior near three-fifths; head fully two-thirds as wide as the prothorax, with moderate and not very prominent eyes, the antennæ extending about to the thoracic base; prothorax two-thirds wider than long, the sides parallel and moderately arcuate; surface convex, with a small basal fovea at each side, near outer fifth; scutellum transversely suboval; elytra fully two-thirds longer than wide, oval, about a fourth wider than the prothorax, gradually rather sharply acuminate toward apex. Length 1.35–1.45 mm.; width 0.55–0.6 mm. North Carolina (Black Mts.),—Beutenmüller. Two specimens.

More elongate, more gradually and sharply acuminate behind, with longer elytra and rather narrower prothorax than *pulchellus* Lec. The yellow spots of the elytra are more widely separated than the rather more nubilous spots of *pulchellus* and *obsoletus*, and the anterior does not approach the basal margin as it does in those species; *obsoletus* is slightly smaller and more abbreviated than *pulchellus*, and with slightly smaller head and shorter prothorax.

Tomarus ventricosus n. sp.—Smaller and shorter than the preceding, shining, black, the under surface piceous, with slender flavate legs; punctures fine, sparse and feeble, a little more evident and closer on the anterior parts; head three-fourths as wide as the prothorax, with rather small eyes, the antennæ piceous, extending slightly behind the thoracic base; prothorax relatively small, nearly one-half wider than long, the arcuate sides straighter basally, the two subbasal punctures near outer fifth; elytra short, three-sevenths longer than wide, broadly oval, moderately acute and attenuate behind, less obtuse than in *pulchellus*, fully three-sevenths wider than the prothorax, each with a sharply defined yellow transverse spot at three-fifths, extending from inner fourth to the margin, without other maculation evident in the type. Length 1.2 mm.; width 0.45 mm. North Carolina (Warm Springs, near Asheville).

Differs from *quadrinotatus* in its smaller size, more inflated elytra, with only a single yellow spot on each and in its much narrower prothorax.

Cryptophilus Reit.

Carelessness is evident concerning this name, as it is completely overlooked in the Schenkling catalogue, the species *integer* Heer being included there under *Cryptophagus*, without any allusion whatever to *Cryptophilus*. The genus, as represented by *integer*, is very distinct and in no way very closely allied to *Cryptophagus;* I have before me two additional species as follows:

Cryptophilus fluminalis n. sp.—Elongate-suboval, convex and shining, ochraceous, the pubescence short, fine, subdecumbent and not dense; head short, well developed, three-fourths as wide as the prothorax, the eyes moderately developed and rather convex; antennæ slender, longer than the head and prothorax, the first joint not very stout, cylindric, the club notably narrow but loose as in *Cryptophagus;* prothorax three-fifths wider than long, the sides parallel, with even edge nearly straight, rounding apically and basally; punctures loose, rather small but distinct; scutellum short and transverse; elytra almost two-thirds longer than wide, as wide as the prothorax, gradually attenuated and with broadly arcuate sides from before the middle to the somewhat narrowly rounded apex; punctures fine and rather sparse, loose, with regular series of slightly larger and rather close-set punctures. Length 1.8 mm.; width 0.65 mm. Mississippi (Vicksburg). One specimen.

Differs conspicuously from European specimens identified as *integer* Heer, in its longer antennæ and gradually attenuate elytra, these in *integer* being parallel and nearly straight at the sides, becoming parabolically rounding only in apical third. A specimen from Alexandria, Louisiana, resembles the Vicksburg type very closely, but the antennæ are not quite so long and the elytra less gradually attenuated, though much more so than in either of my two specimens of *integer*, from Greece. A specimen from Del Rio, Texas, is similar to the one from Alexandria; they are all of about the same size, color and general characters as in *integer*.

Cryptophilus seriatus n. sp.—Oblong-suboval, convex, polished throughout, piceous, the elytra and legs paler and more rufous; pubescence rather long, coarse and sparse; head short, two-thirds as wide as the prothorax, with well-developed and rather convex eyes; front moderately and loosely punctate; antennæ rather thick, about as long as the head and prothorax, the first joint moderately swollen; club abrupt, wide, very loose, the last joint distinctly narrower than the two preceding; prothorax fully three-fourths wider than long, parallel, the sides broadly, subevenly arcuate, rather broadly and evenly reflexed throughout; apex broadly, subprominently rounded medially; punctures strong and deep, separated by their own diameters; base with feeble impression near lateral fourth; elytra two-thirds longer than wide, barely visibly wider than the prothorax, the sides very gradually rounding and converging behind about the middle; punctures strong and distinct, deep, close-set in even lines, the alternate series a little smaller, well separated and rather broadly confused toward the suture; under surface nearly black. Length 2.5 mm.; width 0.85 mm. Massachusetts (Framingham),—C. A. Frost.

This is a remarkably distinct species in size and sculpture; it is nearly twice as large as *integer* or *fluminalis* and differs in numerous characters, as may be inferred from the description.

Antherophagus Latr.

The following species has an unusually abbreviated outline and rather small antennæ:

Antherophagus oregonus n. sp.—Oblong, broad and convex, pale brownish-testaceous and somewhat shining; pubescence pale, rather abundant but short and not very conspicuous; head fully two-thirds as wide as the prothorax, the eyes small and feebly convex, the short tempora behind them slightly more prominent; punctures fine and rather close-set; frontal margin broadly and rectilinearly truncate; antennæ barely longer than the width of the head, the loose club not quite a third the total length, slender and only very moderately dilated; prothorax three-fourths wider than long, the parallel sides distinctly arcuate; apex barely narrower than the base, very feebly bisinuate; punctures minute, even and rather close-set; scutellum transverse, narrower at base than at apex, the oblique sides straight; elytra about as wide as the prothorax, shorter than usual, only three-sevenths longer than wide, gradually rounding from a little behind the base to the narrowly obtuse apex; surface with very faint indication of striation, very minutely but somewhat loosely punctulate; under surface feebly shining, very minutely punctulate. Length 4.2 mm.; width 1.75 mm. Oregon (Bull Run, Clackamas Co.),—Mrs. Kermack.

The single type is a female and may be compared with the female of *pallidivestis*, differing in its much broader form, less conspicuous vestiture, larger and more transverse scutellum and also in several other respects.

Cryptophagus Hbst.

The six following species are among the more widely isolated of those now at hand and still undescribed:

Cryptophagus boulderanus n. sp.—Suboblong-oval, convex, slightly shining and pale brown, the vestiture ashy, short and rather abundant, the elytra also with lines of longer and suberect hairs; head short and wide, two-thirds as wide as the prothorax, the eyes moderate but rather prominent; punctures deep and close but discrete; antennæ fully as long as the head and prothorax, the club abrupt, twice as wide as the stem; prothorax four-sevenths wider than long, the parallel sides with a minute dentiform lobe at the middle, the anterior truncature oblique, the succeeding sinus shallow; basal angles minutely but acutely dentiform; punctures small but deep, dense but discrete; elytra two-thirds longer than wide, at the middle of the broadly arcuate sides a fifth or sixth wider than the prothorax, gradually rounding from behind the middle; punctures very fine, deep, separated by two to three times their diameters. Length 2.85 mm.; width 1.15 mm. Colorado (Magnolia, Boulder Co.),—Mrs. T. L. Casey.

This species may be placed near *lepidus*, but the elytra are longer and the antennal club broader and more abrupt, among other differences; it is one of the larger species of the genus.

Cryptophagus rupimontis n. sp.—Oblong, slightly shining, testaceous-brown; pubescence moderately long, coarse, not very dense, the longer hairs forming tolerably distinct lines on the elytra; head closely punctate, short, two-thirds as wide as the prothorax, the eyes rather well developed, convex; antennæ not quite as long as the head and prothorax, the first joint short, dilated, the club only moderately wide, loose, subparallel; prothorax one-half wider than long; base slightly narrower than the apex; apical prominences moderate, with slightly arcuate oblique truncature, a little more than half as long as the adjoining sinus, the median denticle distinct; punctures moderate, deep and close-set; scutellum transversely oval; elytra oblong, barely over one-half longer than wide, nearly a fourth wider than the prothorax; humeri widely exposed at base; sides feebly arcuate, the apex rather obtusely, subcircularly rounded; punctures small but deep, moderately separated. Length 2.5 mm.; width 0.95 mm. Colorado (Magnolia, Boulder Co.).

Differs very much from the preceding in its larger eyes, shorter and more slender antennæ, relatively narrower but shorter prothorax and broader elytra; the obliquely truncate anterior thoracic projections are a little shorter.

Cryptophagus densicollis n. sp.—Rather broadly oblong, parallel, reddish-brown, the elytra moderately shining; pubescence coarse, moderately abundant, the longer hairs of the elytra not definitely in series; head short, closely punctate, about three-fifths as wide as the prothorax, the eyes rather small but convex; antennæ thick, not quite as long as the head and prothorax, the first joint thicker, subglobular, the club well dilated, parallel; prothorax four-sevenths wider than long, the oblique anterior nodes not at all prominent, very nearly as long as the adjacent shallow sinus before the small submedian denticle; basal part feebly, arcuately converging; punctures strong, deep and dense, almost or quite in mutual contact; scutellum short and transverse; elytra scarcely more than one-half longer than wide, barely noticeably wider than the prothorax, parallel, with feebly arcuate sides and rather obtusely rounded apex; punctures separated by about their own diameters, gradually coarser and closer basally. Length 2.25 mm.; width 1.05 mm. Iowa (Iowa City),—Wickham.

This species can be recognized easily by its somewhat obtusely oblong form, rather short and thick antennæ, unusually short and densely sculptured prothorax and strongly, closely punctured elytra.

Cryptophagus keeni n. sp.—Among the smaller of the genus, parallel, moderately convex, distinctly shining, obscure testaceous, the ashy pubescence only moderately short, not very dense, nearly uniform on the elytra; head rather short, triangular, two-thirds as wide as the prothorax, with moderate, somewhat convex eyes; punctures strong and close-set but distinctly separated; antennæ a little longer than the head and prothorax, the shaft rather slender, the club only moderately dilated; prothorax one-half wider than long, parallel, the median denticle of the sides minute, the basal angles obtuse, not rounded but also not prominent; apical truncatures narrow, oblique and plectrate; punctures rather strong, deep, moderately separated; elytra two-thirds longer than wide, at the middle of the distinctly arcuate sides evidently wider than the prothorax, gradually somewhat attenuate in about apical half; punctures fine, rather well separated. Length 1.7–1.85 mm.; width 0.65–0.7 mm. British Columbia (Metlakatla),—J. H. Keen.

May be placed near *inscitus*, but much smaller, narrower and posteriorly more attenuated.

The species *cribricollis*, which I formerly united too hastily with *inscitus*, is shorter, broader and with longer and much less transverse prothorax; I now think that the types represent two different species.

Cryptophagus contractus n. sp.—Oblong, unusually abbreviated, shining, dark piceous in color, with notably long and rather coarse, pale vestiture, not dense but conspicuous; head briefly triangular, not quite two-thirds as wide as the prothorax, the eyes small and prominent; punctures strong and deep, moderately separated; antennæ slightly longer than the head and prothorax, piceous, the club moderate; prothorax one-half wider than long, the sides parallel, with the median denticle moderate, the hind angles slightly obtuse, not prominent, the apical angles with rather long truncature, obliquely dentate at its posterior end; punctures rather coarse, deep and close-set but discrete; elytra only about one-half longer than wide, not evidently wider than the prothorax, the sides very feebly arcuate; apex gradually evenly rounded; punctures rather strong and very distinct, separated by about twice their diameters. Length 2.0 mm.; width 0.8 mm. Montana (Mullan),—Wickham.

Not closely allied to any other species now known, it may take its place at the end of the genus.

Cryptophagus vestigialis n. sp.—More elongate, parallel, similarly convex, shining, the anterior parts less so, because of density of sculpture, blackish-piceous, the elytra not quite so dark; pubescence rather coarse and long, subdecumbent, pale and distinct though rather sparse; head fully two-thirds as wide as the prothorax, briefly triangular, the eyes larger than in the preceding forms; punctures strong, separated by about their own diameters; antennæ not quite as long as the head and prothorax, the basal joint smaller than usual, the very long club more than a third the total length, very abrupt and wider than usual; prothorax short, about three-fourths wider than long, the sides parallel,

rather arcuate, the median denticle minute, the apical truncatures rather long, but feebly oblique, only slightly posteriorly prominent, the basal angles obtuse; punctures moderate but deep, very slightly separated; scutellum short and transverse, shining; elytra not quite two-thirds longer than wide, at the middle of the just visibly arcuate sides very slightly wider than the prothorax, evenly, circularly rounded behind, the humeral angles unusually exposed at base; punctures fine, separated by about twice their diameters, a little coarser and less separated toward base. Length 2.4 mm.; width 0.95 mm. North Carolina (Southern Pines),—Manee.

I do not know any other species with which to make a comparison at all close, so the species may be placed near the end of the genus. It is difficult to make out the true structure of the thoracic sides, except under high magnification, because of the somewhat obscuring pubescence and, as this character pertains also to the following, these two species may be placed consecutively.

Cryptophagus grossulus n. sp.—Oblong, convex, pale piceo-rufous, feebly, the elytra more evidently, shining, the sculpture strong; pubescence rather long, abundant, coarse and conspicuous; head briefly triangular, three-fifths as wide as the prothorax, the eyes moderate, globularly prominent; antennæ longer than the head and prothorax, thick, piceous, the basal joint thicker, the club broader than usual; prothorax large, barely more than one-half wider than long, the sides parallel, evenly and distinctly arcuate, the obliquity at the anterior angles feeble, the median denticle barely visible; punctures moderate but deep and dense, though not quite contiguous; scutellum relatively small, transversely suboval; elytra scarcely one-half longer than wide, about as wide as the prothorax, gradually evenly rounded behind, the sides feebly arcuate; punctures strong and deep, separated by scarcely twice their own diameters. Length 2.5 mm.; width 1.18 mm. Ohio.

There is no other species known to me quite so obese and strongly sculptured as this, and the antennæ also are unusually thick. The following species may be placed near the European *collaris* Scop.:

Cryptophagus angustatus n. sp.—Narrowly oblong, moderately convex, brown, the elytra slightly paler; pubescence moderately long, loose, the longer hairs of the elytra forming somewhat even lines; head short, fully three-fourths as wide as the prothorax, the eyes well developed, somewhat prominent; antennæ rather slender, not quite as long as the head and prothorax, the first joint subquadrate, the loose club rather narrow, parallel; prothorax somewhat less than one-half wider than long, the sides parallel, converging behind the distinct median denticle, the apical truncatures slightly prominent, the obliquity notably short, less than half as long as the sinus behind it; punctures fine but deep, slightly separated; scutellum moderate, very short and transverse; elytra but slightly more than one-half longer than wide, somewhat obtusely rounded at apex, only slightly wider than the prothorax, the parallel sides feebly arcuate; punctures fine, separated by between two and three times their diameters. Length 2.18 mm.; width 0.8 mm. Kansas (Sedgwick Co.).

Differs from a Reitter specimen of *collaris*, from northern Hungary, in its rather larger eyes, shorter antennæ, with more parallel

club, somewhat less prominent apical oblique thoracic truncatures and some other characters.

Cryptophagus mainensis n. sp.—Oblong-oval, convex, strongly shining, testaceous, the pubescence moderate, loose; head small, short, three-fifths as wide as the prothorax, the eyes small, prominent; surface finely, rather closely punctate; antennæ slender, longer than the head and prothorax, the first joint rather narrow, cylindric, the club moderate, its first joint narrower than the others; prothorax short, three-fourths wider than long, the sides converging behind the denticle, which is distinct and somewhat behind the middle; anterior obliquities relatively rather long, not prominent, much longer than the small sinus immediately behind them; punctures moderate, rather well separated; elytra very little wider than the prothorax, not quite one-half longer than wide, oval, the sides rounding from slightly before the middle; punctures small and decidedly sparse. Length 1.5–1.65 mm.; width 0.55–0.65 mm. Maine (Monmouth).—C. A. Frost.

This is by far the smallest species of the genus that I have seen and it is not allied at all closely to any other. The two following are also widely isolated, but in a very different way:

Cryptophagus prominens n. sp.—Rather narrow and elongate, somewhat shining, rufous, the elytra more yellowish-testaceous; pubescence coarser, somewhat shaggy, uniform, not very dense; head small, two-fifths as wide as the prothorax, short, the eyes relatively rather large, convex; punctures moderate but deep and close; antennæ slightly longer than the head and prothorax, the first two joints stouter as usual, the club rather narrow, not very abrupt, the joints increasing slightly in width outwardly; prothorax short, four-sevenths wider than long, widest at the short, obliquely truncate and very prominent apical nodes, which are separated from the slightly post-median moderate denticle by nearly twice their length; sides basally straight and a little more oblique; punctures rather small but very deep and dense, though not in mutual contact; elytra four-sevenths longer than wide, parallel, with feebly arcuate sides, circularly rounded at tip, slightly wider than the anterior widest part of the prothorax, the humeri rather widely exposed at base; punctures notably fine, moderately separated. Length 2.4 mm.; width 0.85 mm. Connecticut (So. Meriden). One specimen.

Easily to be known by the laterally prominent anterior truncate thoracic angles, among other characters.

Cryptophagus restrictus n. sp.—Slender, subparallel, slightly, the elytra more strongly, shining, testaceous, the elytra somewhat more yellowish; pubescence rather long and coarse, moderately abundant; head short, two-thirds as wide as the prothorax, closely punctate, the eyes moderate, subglobularly prominent; antennæ rather slender, barely longer than the head and prothorax, the first joint moderately stout, the club rather narrow, subparallel; prothorax about one-half wider than long, the apical obliquely truncate prominences acutely plectrate at their hind limit and a little longer than the short deep sinus separating them from the distinct submedian denticle; sides moderately oblique and straight in about basal half; punctures small, deep, rather close-set; scutellum small, transversely oval; elytra nearly three-fourths longer than wide, parallel, with feebly arcuate sides and circularly rounded apex, rather distinctly wider than the apex of the prothorax, the humeri well exposed at base; punctures small, not very

deep or close, though not sparse. Length 2.0 mm.; width 0.65 mm. Canada (Montreal). One specimen.

Allied only to the last but smaller and still much narrower, the antennal club more parallel, the eyes smaller, the prothorax smaller, with the sinus behind the apical prominences very much shorter and the scutellum less transverse.

Macrodea n. gen.

Body very elongate, posteriorly subattenuate. Head small. Antennæ well developed, the first five joints very thick and heavy, the next three small, the ninth, or first joint of the club, but little longer than the preceding three and much smaller than the tenth or eleventh. Prothorax long, with a rounded discal indentation on the median line near the base. Scutellum short, strongly transverse. Elytra long, the punctures confused. Abdomen with the first segment a little longer than the others, the legs short.

This genus is evidently allied to *Cænoscelis*, but differs very much in its elongate prothorax and very peculiar antennæ; the type is the following:

Macrodea antennalis n. sp.—Body rather narrow, elongate, moderately convex, somewhat shining, uniform testaceous in color; pubescence moderately long and subdecumbent, rather sparse, not very conspicuous; head small, barely more than half as wide as the prothorax, short, finely and rather loosely punctate, the eyes basal as usual, moderately developed and convex; antennæ longer than the head and prothorax, the first joint rather long and thick, cylindric, 2–5 more or less nearly twice as thick as 6-8, the fourth a little wider than 2, 3 or 5; prothorax as long as wide, the sides parallel, evenly and very moderately arcuate; apex subtruncate, not distinctly narrower than the base; punctures rather small, deep and very close-set though discrete; elytra nearly twice as long as wide, near basal third a fifth or sixth wider than the prothorax, thence gradually attenuate, with broadly arcuate sides, to the somewhat narrowly rounded apex; humeri slightly tumescent, very narrowly exposed at base; punctures fine but deep, uniform, separated by about twice their widths. Length 2.4 mm.; width 0.65 mm. Canada (Edmonton, Alberta),—Carr.

This distinct species may easily be known by its narrow, posteriorly subattenuate form, long prothorax and the peculiar antennal structure, as indicated above. The type is not sexually identifiable.

Atomaria Steph.

A number of species of this genus and *Agathengis* are still undescribed, but the two following are especially notable:

Atomaria ebenina n. sp.—Regularly elongate-oval, strongly convex, polished and deep black throughout, the elytra not at all paler distally; abdomen rufescent,

black basally; pubescence extremely short, sparse and inconspicuous; head barely four-sevenths as wide as the prothorax, the eyes moderate; antennæ piceous, slightly longer than the head and prothorax, with well-developed parallel club; prothorax long, scarcely three-sevenths wider than long, the sides subevenly arcuate, converging beyond the middle; apex feebly sinuate, three-fourths as wide as the base; punctures very fine, but deep, loose; scutellum short, fully twice as wide as long; elytra long, oval, with arcuate and gradually converging sides, four-sevenths longer than wide, before the middle nearly a fifth wider than the prothorax, the humeri very narrowly exposed at base; punctures minute and rather sparse; legs pale. Length 1.45 mm.; width 0.6 mm. New York (Bluff Point, Lake Champlain). One specimen.

This is one of the more distinct species of the genus; it may come near *ovalis*—not "*oralis*" as published in the Schenkling Catalogue.

Atomaria nebulosa n. sp.—Oval, convex, polished, black, the elytra gradually rufo-pallescent posteriorly in about apical half; pubescence very short, decumbent, sparse and inconspicuous; entire abdomen rufous, the legs pale; head four-sevenths as wide as the prothorax, with very moderate eyes; antennæ pale ferruginous, somewhat longer than the head and prothorax, with elongate-cylindric basal joint and parallel club; prothorax nearly one-half wider than long, the sides almost straight, parallel in basal, oblique in apical, half; punctures small, well separated; scutellum longer, oval, scarcely one-half wider than long; elytra hardly one-half longer than wide, before the middle a fourth wider than the prothorax, the sides arcuate, attenuate behind the middle; humeri not at all exposed at base; punctures fine and sparse. Length 1.1–1.25 mm.; width 0.45–0.55 mm. New York (Bluff Point, Lake Champlain). Two specimens.

This species is very much smaller than the preceding, more abbreviated, narrower, with less transverse scutellum, paler antennæ and posteriorly pallescent elytra. The prothorax is smaller and much narrower than in the almost similarly small *ovalis*.

Ephistemus Steph.

At present this genus comprises but few species, although there are probably many more than now known, because of their rarity or obscure habits; the following is an interesting species, hitherto undescribed:

Ephistemus perminutus n. sp.—Oval, convex, polished, pale testaceo-ochraceous throughout, glabrous; head about four-sevenths as wide as the prothorax, the eyes moderate, not prominent; antennæ short, slender, with well-developed club; prothorax about twice as wide as long, the sides strongly arcuate, becoming strongly convergent apically and parallel basally; apex truncate, two-thirds as wide as the base; punctures very minute and sparse; scutellum small, transverse, broadly rounded; elytra a fourth longer than wide, oval, just visibly wider than the prothorax, minutely and sparsely punctate. Length 0.75 mm.; width 0.4 mm. North Carolina (Southern Pines),—Manee. Two specimens.

Very much smaller than *apicalis* and of different color; it is also more narrowly oval.

Parephistemus n. gen.

Body somewhat as in *Ephistemus*, but more elongate-oval and with larger prothorax, glabrous, polished and very feebly sculptured. Head a little larger, with prominent and convex eyes. Antennæ 11-jointed, short, slender, with narrow 5-jointed club, the joint before the club a little thicker than the preceding, oval. Scutellum rather small, equilatero-triangular. Elytra oval, the fine punctures partially seriate in arrangement. Abdomen with the three median segments short, especially the fourth, which is very much abbreviated medially and with the posterior suture extremely fine; first and fifth segments large. Legs rather short, the tarsi well developed and rather thick.

The type of this distinct genus is the following:

Parephistemus ocularis n. sp.—Oval, convex, glabrous and polished, black, the head and prothorax obscurely rufescent; head fully four-sevenths as wide as the prothorax, the eyes moderate in size but notably convex; antennæ pale flavo-testaceous; prothorax scarcely one-half wider than long, the sides oblique from base to apex and evenly, rather feebly arcuate; apex truncate, two-thirds as wide as the base, the punctures excessively minute and sparse; elytra rather obtusely oval, at the middle of the arcuate sides barely a fifth wider than the prothorax, widest at the middle, the apex gradually rounded; punctures minute and sparse, at some places forming loose series. Length 1.2 mm.; width 0.65 mm. North Carolina (Southern Pines),—Manee.

Notably distinct and differing from any *Ephistemus* in the more convex eyes, larger prothorax, triangular scutellum, 5-jointed loose and slender antennal club and many other characters, involving structure and habitus.

HISTERIDÆ

The number of species belonging to this exceptionally well-defined family amounts to many more than hitherto suspected and unknown forms are constantly coming to light.

Hister Linn.

The three following new species are very distinctly characterized:

Hister albertanus n. sp.—Oblong-oval, shining and deep black; head moderate, the ambient sulcus interrupted at the middle; prothorax two and a fourth times as wide as the median length, the moderately oblique sides distinctly and subevenly arcuate; apex deeply sinuate, not quite half as wide as the base; marginal incised line moderate, incurvate at apex, extending to basal fifth, the lateral groove rather coarse and deep, extending more finely along the apex and not quite attaining the base; intermediate surface very finely, loosely punctulate throughout; surface toward the lateral groove sparsely punctate anteriorly, the groove also somewhat punctate; scutellum small, equilatero-triangular; elytra slightly wider than long, the discal striæ from the suture six in number, 1–3 short

and only in apical half or less, the others not quite attaining base or apex; oblique humeral very fine; surface minutely punctulate laterally, with a loose line of confused and stronger punctures outside of the sixth; propygidium rather strongly, loosely punctate, less coarsely apically and everywhere with a minute interstitial puncture; pygidium moderately punctate, like the apex of the propygidium; prosternum strongly convex along the middle, the mesosternum sinuate medially, margined by an entire moderate groove; abdomen finely, closely punctate in great part. Length 6.75–6.8 mm.; width 4.2–4.6 mm. Canada (Edmonton, Alberta),—Carr.

This species may be placed near *pluto*, at least so far as general appearance is concerned, but it differs in its abbreviated and apically more incurved marginal thoracic stria, line of loose confused punctures on the elytral flanks, wanting in *pluto*, and by many other characters, as may be inferred from the descriptions. The anterior tibiæ are tridentate here, but with four or five smaller teeth in *pluto*.

Hister maneei n. sp.—Evenly oval, rather strongly convex, wholly black and moderately shining; head without trace of an ambient incised line, except at the sides; prothorax unusually elongate, about two-thirds wider than the median length, the sides moderately oblique, feebly arcuate, gradually a little more so apically; apex deeply sinuate, distinctly less than half as wide as the base; marginal stria very fine and close to the edge, almost entire; lateral groove deep, not quite attaining the base, straight, incurved along the apex; between this and the marginal stria there is a short arcuate incised line at apex; surface everywhere devoid of evident punctures; scutellum as usual; elytra distinctly wider than long, with arcuate sides; first stria ending at apical fifth, outwardly somewhat curved at base, 2–5 remote from the first, more or less curved, ending at apical fourth to very near the apex in succession, the sixth stria represented by a very short line before the middle on the flanks; oblique humeral rather feeble; surface without punctures; propygidium moderately and sparsely punctate, impunctate at apex, the pygidium impunctate, except a few minute punctures at the anterior angles; prosternum narrowly convex; mesosternum sinuate medially, bordered by a fine line, which is obsolete at the sides; first ventral longer than the rest of the abdomen; anterior tibiæ in the type greatly worn, but apparently very obtusely tridentate. Length 6.5 mm.; width 4.5 mm. North Carolina (Southern Pines), —Manee.

This remarkable species may be placed near *incertus* at present, but it bears no close resemblance to it and indeed, so far as I know, is a widely isolated development in the genus.

Hister debilicinus n. sp.—Oblong-oval, convex, deep black, smooth and polished; head moderate, with strong mandibles, the circumambient line entire; prothorax slightly more than twice as wide as the median length, the sides feebly oblique, nearly straight, gradually rounding apically; apex deeply sinuate, distinctly more than half as wide as the base; marginal stria sharply incurved at apex, extending to basal two-fifths; lateral groove even, extending from very near the base and along the apex; surface completely impunctate; elytra a third wider than long, with arcuate sides; striæ rather fine, the first from basal third to apical fourth, 2–6 not extending quite to the apex, the second from slightly behind

the middle, the others from very near the basal margin, a little broader basally; oblique humeral extremely fine; surface punctureless; propygidium with moderate shallow punctures, separated by fully their own dimensions; pygidium finely, loosely punctate; prosternum strongly lobed, finely bistriate except apically; mesosternum sinuate at apex, with fine entire margin; anterior tibiæ rufescent, sharply and strongly tridentate. Length 3.6–3.75 mm.; width 2.6–2.72 mm. North Carolina (Southern Pines),—Manee. Three specimens.

A very distinct species, which may be placed near *densicauda*, though not at all closely allied, the pygidia being very much less coarsely and more sparsely punctate; the striation is finer and the size smaller.

The following may be considered as rather closely allied to *abbreviatus* Fabr., but it is probably of specific value.

Hister coloradensis n. sp.—General characters, including the striation throughout, very nearly as in *abbreviatus*, the body more narrowly oval in outline, the thoracic sides slightly more convergent, similarly arcuate, the apex relatively narrower, distinctly less than half as wide as the base; propygidium differently punctured—at least in degree—finely, very remotely punctate medially, more strongly but still sparsely so toward the sides; metasternum before the oblique line less coarsely or densely cribrate. Length 4.8–5.8 mm.; width 3.3–3.6 mm. Colorado (Boulder Co.).

Readily distinguishable from *abbreviatus* by the more narrowly oval outline, also the less coarsely punctate propygidium and metasternum.

Cylistix Mars.

The following species is founded upon a specimen previously alluded to as being a small pallid specimen of *cylindrica*, but further examination, particularly of the pygidial sculpture, seems to prove its distinctness:

Cylistix parvula n. sp.—Narrow, convex, rectilinearly parallel and cylindric, polished; head fully four-sevenths as wide as the prothorax, smooth and deeply excavated in anterior half at sides and two-thirds medially, the depression acutely defined; occiput sparsely punctate; prothorax just visibly longer than wide, the parallel sides nearly straight, rapidly rounding at the apical angles; lateral groove near the sides, curving inward at base and also at apex, defining a narrow flat apical border, which is abruptly piceous-black; punctures minute and sparse, stronger apically; scutellum very minute, narrow; elytra almost a third longer than wide, equal in width to the prothorax and a fourth longer; striation as in *cylindrica;* propygidium very moderately, remotely punctate, the pygidium more strongly but very loosely; under surface and legs nearly as in *cylindrica*. Length 3.7 mm.; width 1.15 mm. New York (Peekskill),—Sherman.

The type has a pale ferruginous even coloration throughout, but bears no other suggestion of immaturity. The prothorax is more unevenly punctulate, the elytra relatively shorter and the propygidium is rather less strongly and much more remotely punc-

tured; *cylindrica* is more essentially southern in range and of much larger size; my ample series is from Texas to North Carolina.

Cylistix deficiens n. sp.—Rectilinearly parallel, convex and cylindric, polished, black, the legs also black; head with the anterior excavation very deep and abrupt but short, scarcely more than a third the total length, the posterior surface minutely and loosely punctured, sloping in its anterior third to the acute edge of the excavation; prothorax as long as wide, the parallel sides very feebly arcuate, rounded at the apex; apical sinus about three-fourths as wide as the base; surface even, impunctate, gradually distinctly but sparsely punctate laterally throughout the length—subimpunctate on the extreme flanks; marginal stria very fine, entire, the lateral groove close to the sides, incurved at base and defining a flat apical bead throughout the width; elytra a third longer than wide, about a third longer than the prothorax; striæ not very coarse, sharply defined, the first from third to five-sixths, second from third nearly to apex, 3–6 from very near base almost to apex; oblique humeral wholly inside the sixth, very short and fine; stria far down on the flanks stronger, bent medially, almost entire; propygidium rather strongly but loosely punctate, gradually finely and remotely so toward apex; pygidium sparsely and moderately punctate, subimpunctate distally; prosternum very narrowly compressed, the lobe long; mesosternum subangularly sinuate, the marginal line fine. Length 4.5 mm.; width 1.2 mm. Canada (Alberta),—Carr.

Resembles *cylindrica*, but a little smaller and narrower and with very different elytral striation, the first two striæ greatly and subequally abbreviated at base; the excavation of the head is very short and apical. The antennæ are piceous, slender, with the club short, broadly oval and pale.

Hetærius Er.

This is a very interesting genus, because of the frequently rather complex structure of the body and the inquilinous habits. The species are moderately numerous and for the most part inhabit the extreme western parts of the continent; the following is one of the few exceptions in this regard:

Hetærius orbiculatus n. sp.—Broadly oval, moderately convex, shining, piceous, the elytra a little more rufous; pubescence coarse, sparse, short and bristling at the sides, very short and sparse, mingled remotely with longer and more erect hairs, on the elytra; head moderate, finely punctate; prothorax twice as wide as the median length; apex with the deep sinus much less than half as wide as the base, but with broadly rounded angles; lateral oblique sulcus deep, the flattened surface thence to the sides narrowed basally, distinctly punctate and with short and coarse, erect hairs, the subbasal fossa rather large; median surface strongly trapezoidal, convex, smooth, virtually impunctate and glabrous; elytra distinctly wider than long, convex, with arcuate sides, the three outer striæ rather fine, equidistant, successively extending more closely to the apex; pygidia not distinctly punctulate and with short stiff reddish and remote erect hairs. Length 2.1 mm.; width 1.75 mm. Pennsylvania. One specimen.

This species may be placed near *blanchardi*, but is much more broadly oval, rather larger in size and with more transverse prothorax; the short sparse elytral hairs are still shorter, the erect ones rather longer; the asperulate punctures are more distinct toward base. The type locality is labeled "Water-Tank."

Saprinus Er.

The number of species in this genus can hardly be estimated; they are probably three times as numerous as indicated by descriptions already published; the very small species are very abundant. The following is a new member of the *alienus* group — a rather large and conspicuous species:

Saprinus shantzi n. sp.—Broadly oval, not very convex above, shining, black, the pronotum with very feeble æneous lustre; head between a third and fourth as wide as the prothorax, finely and closely punctate; antennal club broad and pale; prothorax more than twice as wide as the median length, the sides moderately oblique, straight, rounding slightly at base and broadly at apex, which is deeply circularly sinuate and two-fifths as wide as the base; punctures strong, deep and longitudinally confluent toward the sides, moderate along the base, where they are obsolescent medially; surface finely punctulate apically, wholly smooth and punctureless otherwise except as stated; scutellum very minute; elytra nearly a third wider than long, rounded at the sides basally, less so and slightly oblique thence to the broadly rounded apical angles; striæ and general sculpture as in *alienus*, except that the punctures are coarser and somewhat denser and the striæ a little longer; pygidium somewhat broader, otherwise nearly similar in form and sculpture; prosternum almost as in *alienus*, the mesosternum more narrowly, deeply and angularly sinuate; legs black, the anterior rufous, with the tibiæ arcuate externally and having a series of eight to ten fine spiniform teeth. Length 4.75 mm.; width 3.8 mm. New Mexico (Alamogordo),—H. L. Shantz.

Differs very much from *alienus* in its broader outline, very much more widely rounded anterior thoracic angles, coarser sculpture and deeper and more anguliform sinus of the mesosternum.

Saprinus smithi n. sp.—Oblong-oval, convex and polished, black, the tarsi piceous; head moderate, finely, loosely punctate; prothorax scarcely twice as wide as the median length, the sides very moderately converging and but slightly arcuate, gradually more rounding apically, the angles moderately broadly rounded, apex deeply, circularly sinuate, very nearly half as wide as the base; surface minutely, sparsely punctulate, gradually more strongly but not at all coarsely, very loosely so toward the sides, also with sparsely confused punctures along the base throughout the width; scutellum minute, acutely angulate; elytra barely wider than long, the sides very evenly arcuate; five discal striæ fine, feebly punctate, the first subobsolete but almost entire, 2–5 extending to four-sevenths to three-fourths, the second uniting with the first by an even arcuation; punctures small and sparse in about apical half; inner oblique humeral very fine, the outer extremely short; pygidia finely, evenly and rather closely, but not densely, punctate; prosternum with two subentire lines, the mesosternum very

shallowly sinuate and finely margined; anterior tibiæ obscure rufous, the rounded outer margin with a fine close-set spiniform series. Length 3.2 mm.; width 2.35 mm. California (Milpitas, Sta. Clara Co.),—R. J. Smith.

Readily distinguishable from *pectoralis* by the smaller size, more narrowly suboval outline and very much finer sparse punctuation; it however belongs to that particular section of the genus.

The three following species also belong in this vicinity:

Saprinus subtropicus n. sp.—Oval, convex, polished, black, with barely any metallic lustre, the legs black, the anterior tibiæ rufescent; head moderate, deeply but not very coarsely, loosely punctate, with a feeble median fovea near the base; prothorax four-fifths wider than the median length, the sides moderately converging, feebly, gradually more strongly, arcuate to the apex, which is deeply sinuate and about half as wide as the base; surface subimpunctate, gradually rather deeply but loosely so laterally and finely, sparsely beyond the middle longitudinally, rather strongly and confusedly so along the base throughout; elytra slightly wider than long, the sides feebly, near basal third more strongly, arcuate; first stria entire, two and four extending to the middle, three to basal third and five nearly to apical third, the striæ coarse and distinctly punctured; surface evenly, deeply and loosely punctate in about apical half; pygidia finely, deeply, evenly and closely punctate; prosternal lines deep and evenly parallel, the meso- and metasternum strongly, deeply, evenly and notably closely punctured throughout, the former broadly and just visibly sinuate medially; outer margin of the anterior tibiæ with numerous minute spicules. Length 2.6 mm.; width 1.85 mm. Florida.

A single specimen of this species was received, labeled *braziliensis* Payk., but of course incorrectly, as *braziliensis* belongs to *Hypocaccus*. There are, however, numerous more or less closely allied species; one of these, for instance, is typified by a species from Dunedin, Fla., sent me by Blatchley; it differs from the type of *subtropicus* only in being slightly larger, with more broadly inrounding sides of the prothorax apically, slightly longer elytral striæ, apparently less closely punctured sterna and by the lines of the prosternum diverging basally. The cribrate sternal surface is a conspicuous character in *subtropicus*.

Saprinus pinorum n. sp.—Oval, convex, deep polished black, the legs black, the only feebly dilated anterior tibiæ obscure rufous, with eight or nine small triangular serrules; head small, finely and sparsely punctate; prothorax about twice as wide as the median length, the sides oblique and nearly straight, gradually strongly inrounding in about apical half; apex deeply sinuate, distinctly less than half as wide as the base; surface broadly and gradually, finely and sparsely punctate laterally and more closely, deeply and confusedly so along the base, elsewhere subimpunctate; elytra not quite as long as wide, evenly rounded at the sides; first stria obsolescent apically, 2–5 subequal in length and extending to about the middle, one and two arcuately bowed at base as in the preceding, the striæ coarsely but not very deeply punctate; surface moderately and loosely punctate in about apical half, but impunctate on the flanks as in *subtropicus;* prosternum with the two long lines moderately strong, diverging at the extreme

base; meso- and metasternum more coarsely, deeply, but loosely punctate throughout, the former more narrowly and very feebly sinuate medially. Length 2.25 mm.; width 1.6 mm. North Carolina (Southern Pines),—Manee.

Differs from *subtropicus*, to which it is rather closely allied, in its smaller size, smaller head, finer and sparser punctures, especially of the pronotum, less conspicuously cribrate sterna and some other characters.

Saprinus carolinæ n. sp.—Size more minute, oval, strongly convex, piceo-rufous in color, highly polished; head moderate, finely, sparsely punctate; prothorax twice as wide as the median length; sides moderately convergent and subevenly but not very strongly arcuate throughout; apical angles broadly rounded; apex shallowly sinuate, about half as wide as the base; surface smooth and virtually punctureless, gradually finely and loosely punctate toward the sides and confusedly and more distinctly so along the base; elytra orbicular, not quite as wide as long, strongly and subevenly rounded at the sides; sutural stria obsolescent posteriorly, 2–5 beginning from slightly before to a little behind the middle, rather finely, closely punctate, the second united with the first by a very transverse arc; punctures small and loose, the flanks broadly polished and impunctate; prosternum with the parallel lines fine; sternal surface very moderately and loosely punctate; mesosternal margin almost straight, very feebly sinuate medially, finely margined; outer edge of the anterior tibiæ nearly straight, with microscopic serrules, the apical part more rounded, with about three slightly larger teeth. Length 1.8 mm.; width 1.3 mm. North Carolina (Southern Pines),—Manee.

This very small species, although belonging to the *pectoralis* group, is very distinct from any other known to me by its size, anterior tibiæ and many other more or less evident characters.

Saprinus micros n. sp.—Minute, convex, oblong-oval, piceous-black and polished; head moderate, very minutely, remotely punctulate, more strongly on the narrowed epistoma; prothorax about twice as wide as the median length, the sides feebly converging and slightly arcuate; apex nearly two-thirds as wide as the base, shallowly sinuate; surface subimpunctate, except narrowly and confusedly along the base; elytra not quite as long as wide, the sides feebly arcuate, somewhat more distinctly but broadly toward base; striæ moderate, one from third nearly to apex, two short, visible only in basal third, three to five extending from well behind the base about to the middle; oblique humeral extremely fine; punctures wanting, except intero-apically, where they are minute and sparse to about the middle of the length; prosternal lines and legs nearly as in *scissus*. Length 1.35–1.5 mm.; width 1.0–1.15 mm. California (San Diego).

This minute species, probably the smallest known to me, is allied to *scissus* Lec.—from San Francisco to Monterey—in its much smaller size, shorter second stria and some other characters; the pygidia are similarly very minutely and remotely punctulate.

Saprinus nanulus n. sp.—Parallel, with very moderately arcuate sides, polished, dark rufous in color; head moderate, finely and rather sparsely punctate, the epistoma much wider than in the preceding; prothorax not quite twice as wide

as the median length, the sides feebly converging and but slightly arcuate, rounding anteriorly; apex deeply, circularly sinuate, not quite half as wide as the base; surface throughout very finely, remotely punctate, more strongly and closely near the sides, though still loosely, the punctures scarcely larger but closer narrowly along the base; elytra not quite as long as wide, the sides prominently rounded between basal third and fourth, elsewhere feebly oblique and nearly straight, rounding at apex; first stria, only in apical three-fourths, fine and extremely feeble, second in less than basal half, making a broad arc toward the scutellum, 3–5 similarly very fine and punctulate from near base to about the middle, the third with a small inward basal hook; oblique humeral very fine; punctures very small and sparse, wanting basally and on the flanks; fine prosternal lines most approximate near basal third, thence arcuately diverging to apical fourth, where they become straight and parallel; anterior tibiæ with five or six small triangular serrules. Length 1.7 mm.; width 1.15 mm. Texas (locality unrecorded).

Allied to *scrupularis* Lec., but differs in its relatively narrower, more parallel and oblong form, paler and dark rufous coloration and other characters; the pygidia are almost similarly finely, rather closely and evenly punctate. The sides of the prothorax are much less oblique than in *scrupularis*.

Saprinus mormonellus n. sp.—Subrhomboid-oval, convex, obscure rufous, the pronotum paler at the sides, the head abruptly deep black, finely, loosely punctulate and small in size; prothorax twice as wide as the median length, the sides slightly oblique and feebly arcuate, gradually more rounding anteriorly; apex deeply sinuate, half as wide as the base; punctures very minute, feeble, remote and subobsolete, gradually rather deep and strong but loose toward the sides, sparsely confused and feeble along the base; elytra not quite as long as wide, the sides subprominent and rounded near basal third; first stria subentire, joining the basal arc to the second, which is straight, extending a little behind the middle, fourth and fifth extending nearly to apical third, sixth distinct for a short space at the middle of the flanks; oblique humerals fine but distinct, the outer very short; punctures fine and sparse in about apical half, wanting laterally; pygidia finely, loosely punctate; prosternum distinctly but finely, rather loosely punctate, the lines diverging to the widely separated parallel straight apical parts. Length 1.8 mm.; width 1.18 mm. Utah (Southwestern),—Weidt.

A small species, allied to the southern Californian seacoast *laridus* Lec., and of nearly the same coloration and sculpture, except that here the head is abruptly deep black, contrasting with the rather pale pronotum. The second elytral stria is straighter and forms a narrower arc at base in joining the first, and the sides of the prothorax are less oblique.

Saprinus brevicollis n. sp.—Oval, polished, obscure rufous, the legs rather paler; head finely but deeply, loosely punctate; prothorax notably short, much more than twice as wide as the median length, the sides oblique and straight, broadly, evenly rounding inward apically; apex rather deeply sinuate, half as wide as the base; punctures everywhere fine, deep and distinct but well separated, a little stronger and close laterally; confused punctures along the base only a little more distinct; elytra slightly abbreviated, the sides feebly arcuate, rather

more so basally and gradually more arcuate at apex; first stria very fine and indistinct in about median third, the second extending behind the middle, arcuate and broadly hooked at base, 3–5 extending to apical third to fourth, the sixth represented by a very short medial dash on the flanks; oblique humeral fine and feeble; striæ sharp but not very coarse; punctures small and loose in about apical two-thirds, wanting laterally and becoming gradually very fine and close apically; pygidia finely, deeply and closely punctate; prosternal striæ rapidly diverging, ending in subapical foveæ; metasternum minutely, remotely punctulate; anterior tibiæ with fully eight minute serrules. Length 2.2–2.3 mm.; width 1.4–1.6 mm. Colorado (Greeley),—Wickham.

A distinctly characterized species, allied to *detractus*, from Colorado and Kansas, but with a much shorter and more transverse prothorax and slightly less broadly oval outline of the body.

The following four species are related more or less remotely to *lucidulus* Lec.:

Saprinus recticollis n. sp.—Subrhomboid-oval, shining, black, the elytra, pygidia, under surface and legs more or less feebly rufo-piceous; head transverse, broadly arcuate medially at apex, the surface with about two uneven transverse furrows; prothorax distinctly less than twice as wide as the median length, the sides much longer, feebly oblique and straight, arcuate apically through the rounded angles; sides and deeply sinuate apex strongly margined; surface strongly, rather closely, unevenly strigose, smooth and polished narrowly along the sides and also to some extent transversely near the base, the latter area with isolated punctures anteriorly and medially; elytra distinctly shorter than wide, two-fifths longer than the thoracic sides, only slightly wider than the prothorax, the sides broadly, subevenly arcuate; striation as in *lucidulus*, the apical punctures similar but less close-set; sterna nearly as in that species, the prosternum acutely compressed; anterior tibiæ with five broad obtuse teeth, the basal feeble. Length 2.65–3.3 mm.; width 2.0–2.35 mm. California (Monterey). Two specimens.

Differs from *lucidulus*, of which I have an ample series from San Francisco, in the stronger transverse erosion of the head, longer and straighter sides and coarser sculpture of the prothorax, sparser elytral and somewhat less dense pygidial punctures and broader body.

Saprinus diego n. sp.—More narrowly subrhomboid-oval, shining, black, sometimes rufous; head with a few transverse incised lines; prothorax much narrower than in *lucidulus*, only one-half wider than the median length, the outline and sculpture nearly as in *recticollis*, the feebly oblique sides straighter than in *lucidulus;* elytra shorter than wide, but little wider than the prothorax, the sides much less evenly arcuate than in the preceding, rather more prominently rounded at basal fourth; striation and punctured area nearly as in *lucidulus*, the striæ finer, the punctures finer and sparser though distinct; pygidia narrower, finely and less closely punctate; prosternum much less acutely compressed, the summit of the ridge approximately bistriate; tibial teeth somewhat as in the preceding, the outer outline of the tibiæ strongly arcuate. Length 2.35–3.2 mm.; width 1.6–1.8 mm. California (San Diego and vicinity). Five specimens.

From *recticollis*, which harmonizes very well in the straight thoracic sides, this species differs in its smaller size, narrower form and especially in the bistriate summit of the prosternal ridge, the latter acute in both *lucidulus* and *recticollis*.

Saprinus obsolescens n. sp.—Oblong, convex, shining, deep black, the legs rufo-piceous; head with about two transverse incised discal lines; prothorax two-thirds wider than the medial length, in outline and sculpture as in *lucidulus*, the sides feebly arcuate, strongly rounded at apex; elytra nearly similar in form and striation, but the posterior punctate area is quite different, the punctures minute and sparse, unevenly distributed and in large part wholly obsolete; pygidia similar, deeply and densely punctate; compressed prosternum with two extremely approximate lines along the summit; anterior tibiæ less arcuate externally and with the teeth low and obtuse—probably in part from wear. Length 2.8 mm.; width 1.85 mm. California (Sta. Barbara),—Dunn. A single example.

Differs very much from *lucidulus*, or any of the allied species here described, in the obsolescent punctures of the elytra; the prosternal lines are much as in *recticollis*.

Saprinus rubidulus n. sp.—Oblong-oval, convex and shining, rather bright rufous in color throughout; head with transverse irregular lines, about two in number and shallow; prothorax nearly as in the preceding in form and sculpture; elytra almost as in the preceding in form and striation, but with still more evenly, feebly arcuate sides, the apical punctured area nearly similar and very different from the usual development, the punctures being very minute, extremely sparse and wholly obsolete in parts; pygidia more finely and much less closely punctate; prosternum acutely compressed, the fine summit not bilineate, this structure being as in *lucidulus;* anterior tibiæ rather narrow. Length 2.2–2.65 mm.; width 1.35–1.65 mm. California (Monterey). Three specimens.

This species rather closely resembles *obsolescens* in the almost completely impunctate elytra, but it differs in its pale rufous color, uniform so far as observable, and in the notably less dense pygidial punctures.

These allies of *lucidulus* belong to the subgenus *Hypocaccus* Thoms. The loose external tibial fringe is conspicuous throughout the series, and one of the species may possibly be the same as *barbipes* Mars., the description of which, under the reference given by Bickhardt, I cannot find just now.

The two following species may also be placed under the subgenus *Hypocaccus*, although differing entirely in habitus from the preceding *lucidulus* group:

Saprinus densus n. sp.—Oblong, moderately convex, the feebly arcuate sides slightly prominent though well rounded, at about basal fourth of the elytra; color black, shining though not definitely ænescent, the legs black; head flat above, rather coarsely, loosely and somewhat irregularly punctate and with a few fine oblique strigæ at the sides; prothorax three-fourths wider than the

median length, the feebly oblique sides straight, faintly sinuate at the middle, rapidly rounding at apex, the latter fully half as wide as the base and deeply sinuate; surface smooth and polished, finely, rather closely punctate toward the sides, except at base and near the apex, confusedly and rather densely punctate along the base, more broadly medially; elytra distinctly shorter than wide, the sides feebly arcuate, rounding at apex; striation completely obsolete and untraceable, except a short punctured sutural stria bending outward at base along the small, polished and posteriorly truncate mirror; surface not very coarsely, uniformly, deeply and very densely, though discretely punctate, the apical margin and the humeri smooth; pygidium smooth and impunctate, gradually finely, rather closely punctate basally, the propygidium moderately but densely and deeply punctate throughout; prosternum narrow and compressed, flat, with two fine lines gradually converging from base to the middle—the narrowest part; anterior tibiæ moderately wide, with six or seven small external serrules inclusive of the small apical one. Length 3.0 mm.; width 2.25 mm. Arizona (near Tuçson),—Tucker.

This is a notably distinct species, which may be placed near *bigemmeus*, but differing in the straighter thoracic sides, smaller subscutellar mirrors, entire want of discal striæ—very evident basally in *bigemmeus*—and in the posteriorly polished and impunctate pygidium.

Saprinus ludovicianus n. sp.—Oblong, strongly convex, black, the impunctate parts polished and subæneous; head moderate, almost impunctate, with a few transverse erosions; prothorax not quite twice as wide as the median length, the sides feebly oblique and nearly straight, broadly rounding at apex, the sinus very deep, rather more than half as wide as the base, the bottom of the sinus rectilinearly transverse, the surface broadly impunctate medially, rather strongly, closely and confluently punctate toward apex and more broadly laterad, but with the surface shining, densely but discretely punctate broadly along the base; elytra moderately abbreviated, the sides distinctly arcuate; first stria obsolete, the second oblique in basal third, curving at base not quite to the scutellum, third obsolete, fourth and fifth evident, oblique in basal two-fifths and half; oblique humeral extremely fine; punctures deep, strong and close but discrete, a large and transversely oval common basal mirror well defined, the lower flanks—widening slightly at the humeri—and the apex rather broadly smooth and polished; pygidia very finely, evenly and closely but discretely punctate; prosternum compressed, the narrow flattened surface posteriad finely bistriate; anterior tibiæ with numerous fine sharp serrules, the two distal larger than the others. Length 2.3 mm.; width 1.8 mm. Louisiana (Covington).

Allied to *fitchi*, but differs in its smaller size, more shining surface, the punctate parts in *fitchi* being much more dense and opaculate, with the punctures longitudinally coalescent on the elytra as well as pronotum; the small pygidial punctures are still finer and not quite so dense, the surfaces more shining. The serrules of the anterior tibiæ are rather fewer and more gradually increase in size toward apex in *fitchi*, and the bistriate prosternum increases more in width basally.

PTINIDÆ

It is desirable to call attention to the species *Ptilinus flavipennis* Csy., proposed as a synonym of *basalis* by Mr. Fall, but which cannot be considered as even closely allied to that species, being very minute, slender and wholly different in numerous important characters, as could very well be inferred from a careful perusal of the descriptions. More especially, however, I wish to allude to *Cænocara occidens* Csy., which has been made a synonym of *californica* by the same writer. So far from being a synonym, this species is not even closely related to *californica*, having only about half the weight and being of a pale piceous color, uniformly throughout my series of three specimens, besides differing in many other ways.*

While referring to inadmissible synonymy, two other cases occur to me just now and there are a good many others besides.

In regard to *Cibdelis lævigata* Csy., the references are unaccountable. This species in the Leng list is made a synonym of *gibbosa* Mots. Turning to the authority, as shown by the printed numbers, I find as follows:

"*Scotera gibbosa* Esch. I am unable to find an insect of this name in the collection of Eschscholtz, but, judging by the place assigned to this genus in the catalogue of Dejean, I do not believe myself deceived in considering it a synonym of *Cibdelis blaschki*, so much the more, as among the Melasomes of the Eschscholtz collection, this last species occurs without indication of name, and it is not probable that this learned entomologist, having especially studied this family, should not have examined and named an insect so notable in size." This is all that is stated by Motschoulsky at the reference given in the Leng list. Now how anyone, under these circumstances, could state that *lævigata* is a synonym of a hypothetical *gibbosa*, is beyond my powers of comprehension. As a matter of fact *lævigata* bears no resemblance to *blaschki*, being virtually smooth, oval, much less convex and in no way warranting such a name as *gibbosa*.

Another singular and unaccountable positive statement of synonymy is that of *Psomus politus* Csy., which is referred to *Orchestes armatus* Dietz. Under the description of *armatus* (Tr.

* It is very difficult to understand how some systematists have no hesitancy whatever in making direct and definite statements concerning synonymy, without having seen the types or even a specimen compared therewith. They furthermore display no ethical sentiment concerning truth, which should be the chief aim of us all, for otherwise scientific knowledge is not advanced but retarded.

Am. Ent. Soc., 1891, p. 268) it is said that it is "robust, very sparsely clothed with short pale suberect pubescence; elytra broadly oval, with prominent humeri, the ninth interspace near the base produced in the form of a short acute spine," etc. An apparently careful figure is given of the species, which shows a broad outline, completely unlike *Psomus politus* in every particular. I do not think that any observant person could suspect any connection between *armatus*, as thus characterized and illustrated, and *Psomus politus*—a minute and narrow, convex, glabrous species, wholly dissimilar from *Orchestes armatus* in every way and without trace of the lateral spinule of the elytra described in the latter. The authorship of this published synonymy is unknown to me.

It is unnecessary to allude to the preposterous wholesale synonymy proposed by Fenyes in certain Aleocharinid genera, Nicolay and Weiss in the Buprestidæ and Leng in *Prionus*, for the character and nature of the published lists should be sufficient condemnation. A more or less moderate amount of true synonymy is included, of course, but this fact does not afford a legitimate reason for refusal to exercise the discrimination to be expected from intelligent reviewers. A fault of the recent European list of Heyden, Reitter and Weise, as well as the American list of Mr. Leng, is the failure to discriminate between subordinate forms of subspecific or varietal nature and the true and absolute synonym. This detracts materially from the value of both these publications.

CERAMBYCIDÆ

Prionus Fabr.

This is one of those genera extensively developed in North America and characterized by a confusing host of taxonomic forms, hitherto held to be virtually undefinable because of an extreme variability, which I am convinced does not exist beyond a certain easily ascertainable degree. The trouble has been that, owing to deficiency of series known to have been collected at about the same time and place, it has been assumed that the observed diversity of forms is entirely fortuitous, and they have therefore not been attentively studied. It is to be admitted that the accurate delimitation of specific and subspecific forms is a matter of some difficulty, and in many cases of marked uncertainty, but no attempt to understand the results of evolution in the genus has been made by the older workers. I tried to do this in my previous revision,

but since that time much new material has become available and I therefore offer below another attempt at a solution, merely hoping that errors only avoidable by doing nothing at all, may be overlooked so far as may be admissible.

The various forms of *Prionus* proper may be considered to form four subgeneric groups as follows:

Antennæ 12-jointed....2
Antennæ having more than twelve joints in both sexes....3
2—Elytra deeply and confusedly punctato-rugose....Group I
Elytra more or less finely and always discretely punctate....Group II
3—Antennæ 13–18 jointed; general habitus as in Group II....Group III
Antennæ 20–30 jointed....Group IV

In separating the species the chief characters employed refer to the antennæ, palpi and tarsi, with occasional reference to special features, such as the form of the hind thoracic angles, scutellum, mandibles and punctuation. The length, as measured, extends from mandibular apex to tips of the elytra.

GROUP I

Subgenus **Prionellus** nov.

This group comprises a limited number of species, mostly below the average in size, with denser and blacker integuments as a rule and short, unusually transverse prothorax, which is tridentate at the sides as usual, but with the teeth shorter than in Group II. Those at hand may be known as follows:

Broader in form, oblong-parallel, black, the elytra piceo-rufous. Head (♀) notably large, more than half as wide as the prothorax, slightly swollen at base; antennæ slender, scarcely two-thirds as long as the elytra; mandibles swollen and arcuate externally; eyes sinuate anteriorly, separated by more than their own width viewed vertically; surface with a fine, even and deeply impressed line; prothorax more than twice as wide as long, the apical angles oblique, feebly mucronate; middle teeth acute, rather small, somewhat beyond the middle of the length; hind angles minutely and obtusely denticulate, the oblique edge thence to the middle teeth with an obtuse short median projection; base feebly oblique at the sides; surface subimpunctate, rather strongly, not densely punctured toward the sides and with a rounded discal fovea near the middle and at about lateral eighth; scutellum large, nearly smooth, evenly rounded behind and about twice as wide as long; elytra one-half longer than wide to a little less, barely visibly wider than the prothorax, deeply punctato-rugose, more feebly and sparsely toward base; prosternal process notably convex, subhorizontal behind; tarsi slender, very briefly and finely spongiose in part beneath, with narrow and imperfect median impressed glabrous line. Length (♀) 37.0–38.0 mm.; width 16.5–17.0 mm. District of Columbia and Indiana....**laticollis** Drury

A—Smaller than *laticollis*, much broader than any of the following forms, general characters nearly as in *laticollis;* head not quite so large, parallel

behind the eyes, the mandibles hardly at all swollen and the eyes separated by scarcely their own width above, the deep channel of the intermediate surface coarser and more irregular; antennæ shorter and still more slender; pronotum with finer punctures toward the sides and also a few subbasally and apically, except medially; scutellum transverse and evenly arcuate behind and impunctate; elytra nearly as in *laticollis* but shorter. Length (♀) 29.5 mm.; width 14.5 mm. A single specimen, without indication of locality.....**brevicornis** Fabr.

Not so broad and sometimes rather narrow in outline; head smaller as a rule..2

2—Elytral sculpture dense.....3

Elytral sculpture similarly deep, uneven and rugulose but loose, the punctures well separated.....6

3—Joints of the male antennæ following the third more asymmetric, the outer joints very narrow and oblique. Deep black. Male with head larger than in the following species, parallel and feebly arcuate behind the eyes, which are separated by slightly less than their width, the median channel broad and deep; surface thence to the eyes with strong separated punctures, those of occiput smaller, nearly wanting medially; mandibles obtusely subangulate, convex, finely and sparsely punctate; antennæ long, fully as long as the elytra, the outer joints slender; last palpal joint obtriangular, angularly expanded at apex; prothorax slightly more than twice as wide as the median length, the apical angles oblique, the three teeth rather broad but acute; surface deeply punctured laterally, more finely elsewhere, almost punctureless medially, the lateral foveæ deep; scutellum slightly wider than long, oblique at the sides apically, almost smooth; elytra a fifth or sixth wider than the prothorax, four-sevenths longer than wide, the sides feebly oblique, the two discal costules low and irregular; tarsi red-brown. Female a little larger, the head smaller, not quite half as wide as the prothorax, the eyes separated by distinctly more than their width, with the median channel much shallower; antennæ shorter and slender; last palpal joint shorter and truncate; remainder almost as in the male, the elytra broader but less evidently wider than the prothorax. Length (♂) 30.0, (♀) 31.8 mm.; width (♂) 12.5, (♀) 15.0 mm. Massachusetts (Framingham),—C. A. Frost....**frosti** n. sp.

Joints of the male antennæ beyond the third much longer and more cylindric, only slightly asymmetric at their apices. Male with the head not so large as in the preceding, the eyes more prominent at the sides and separated by about their own width; antennæ not quite as long as the elytra; prothorax still shorter and more transverse, almost similarly dentate; scutellum more broadly angulate at apex; elytra almost similar, the two costæ narrower, more acute and even; body brownish-black. Female not known. Length (♂) 24.0–26.5 mm.; width 10.4–10.6 mm. Indiana and New York (Adirondacks).....**oblongus** Csy.

Joints of the male antennæ shorter and less asymmetric, the fourth subquadrate..4

4—Head well developed, much more than half as wide as the prothorax. Black, the head parallel and feebly arcuate behind the eyes, which are separated by more than their own width; surface with deep punctures, nearly smooth along the middle, where there is a deep and broadly impressed groove; mandibles bent transversely at apex; last palpal joint narrowly obtriangular; antennæ a little shorter than the elytra, the outer joints gradually narrow, obtriangular, the fourth about as long as wide; prothorax barely over twice as wide as long, sparsely punctate, impunctate medially, the apical angles oblique, the two anterior teeth rather short, oblique, very acute at tip, the posterior small or wanting but sharp; scutellum slightly transverse, rounded behind, nearly smooth; elytra one-half longer than wide, a fourth to third wider than the prothorax; sides arcuate as in *frosti*, not so rectilinear as in

oblongus; two costules feeble and almost obliterated; tarsi dark brown, the second and third joints of the anterior much wider than long; prosternal process horizontal apically as usual. Length (♂) 26.0–30.0 mm.; width 12.0–13.0 mm. New York (Adirondacks) and Lake Champlain.
nigrescans n. sp.

Head notably small; color more or less blackish-brown.....5

5—Prothorax (♂) of the usual form and size of the preceding species, only a little narrower than the elytra; head less than half as wide as the prothorax, the eyes more prominent than the tempora, separated by distinctly less than their width; surface strongly but loosely punctate, the median channel fine and only feebly impressed; last palpal joint only twice as long as wide; mandibles smaller than usual; antennæ rather rapidly becoming thin distally, not quite as long as the elytra, the fourth joint subquadrate, very little longer than wide; prothorax of nearly the same structure and sculpture as in the preceding, the lateral foveæ rather shallow and irregular; scutellum moderate, with sparse but evident punctures, narrowly rounded at tip; elytra one-half longer than wide, suboblong, only about a fifth wider than the prothorax, the two costules rather approximate, low and obtuse but distinct; anterior tarsi much narrower than in the preceding, pale red-brown. Length (♂) 21.0 mm.; width 9.0 mm. Locality unrecorded...**densus** n. sp.

Prothorax (♂) small, barely more than twice as wide as long and very much narrower than the elytra; head relatively rather small, though much more than half as wide as the prothorax, the eyes much more prominent than the sides of the occiput, rather large, separated by much less than their own width; surface deeply and unevenly punctate, with rather wide median channel, also a narrower one near each eye; mandibles small, circularly rounded; antennæ attenuate apically, nearly as long as the elytra, the joints with prominent apical angles; prothorax finely, sparsely punctured, more strongly and densely near the apical and basal angles; lateral foveæ small; middle marginal tooth acute, situated distinctly beyond the middle; scutellum unusually small, evenly ogival, with very few rather small punctures; elytra two-fifths wider than the prothorax, a little more than one-half longer than wide, the sides oblique; discal costules distinct, with a third more external and partially developed; tarsi only feebly dilated. Length (♂) 19.6 mm.; width 8.4 mm. Locality unrecorded...**parvus** Csy.

6—Body (♀) narrower, more elongate and parallel than usual, the type pale testaceous-brown in color throughout; head fully four-sevenths as wide as the prothorax, the eyes very moderate, not more prominent than the tempora and separated by much more than their own width, deeply emarginate; surface very moderately and rather sparsely punctate, impunctate mediobasally, the groove fine, feebly impressed; mandibles well developed, rounded externally; slender antennæ short, scarcely more than a third the total length; prothorax short, two and one-half times as wide as long, smooth, moderately punctate toward the sides; lateral teeth feeble, the posterior wholly wanting in the type; scutellum moderate, nearly smooth, ogival; elytra amost two-thirds longer than wide, parallel, with very obtuse apex, a fourth or fifth wider than the prothorax, the deep strong punctures isolated; two costules distinct. Length (♀) 25.8 mm.; width 11.0 mm. New York (Adirondacks).....**kempi** Csy.

Laticollis is by far the largest species of this subgenus and does not seem to be at all common; one of my two specimens I took when a boy of fourteen, under leaves in the woods near Washington. *Kempi* is a distinctly isolated species. The species indicated above

all seem to be unequivocally valid and there are doubtless more of them still unknown.

GROUP II

Subgenus **Prionus** in sp.

This is by far the largest subdivision of the genus *Prionus*, and the species are nearly all of the far west and not confined to the Atlantic regions as they are in the preceding group. The elytral sculpture is not rugose, or very deeply punctured as a rule, but the punctures are most notably strong though very sparse in *pocularis* of the Atlantic regions, this part of country giving rise to deeper sculpture than the Pacific regions. The taxonomic forms become more closely allied and confused in this group than in any other, and it seems to have a more plastic nature; it is in fact almost impossible to be entirely sure in regard to species in many cases, and I have therefore indicated many of the forms provisionally as subspecies.

Size very large, the species including the largest of the genus; prothorax large and transverse, frequently nearly as wide as the elytra as in the preceding group, but having much longer and broader lateral spines. Male apparently very rare.....2

Size small to rather large, the prothorax transverse though always distinctly narrower than the elytra; medio-lateral thoracic spines rather long but not so broad as in the preceding section.....3

2—Prothorax nearly as wide as in *laticollis*, but distinctly more coarsely and densely punctate; elytra moderately shining, the costules sharply defined (♂), feeble (♀); punctuation nearly as in *californicus* (♀), coarser (♂), but not at all rugose; prosternal process strongly ascending at tip; densely spongy hind tarsal soles with distinct median channel, which is wider on the basal joint; color nearly black. Length 40–48 mm.; *heros* || Fall. Characters derived from the original description of *heros*.....**heroicus** Semen.

A—Prothorax strongly transverse, though evidently narrower, finely, sparsely punctate, more densely toward the sides, partially impunctate medially, the lateral fovea of the preceding subgenus elongate, shallow and not well marked; hind angles obliquely truncate as in the others of this group; head large, parallel behind the eyes, which are separated by slightly more than their width; scutellum large, obtuse, finely punctate; elytra with the sides oblique and but slightly arcuate; surface with moderate sparse punctures, the costules very feeble; prosternal process thickened and convex apically but horizontal. Length (♀) 45.0–47.0 mm.; width 18.0 mm. Male unknown. New Mexico (Jemez Springs).....**tristis** Csy.

B—Prothorax still shorter, relatively wider, subsimilarly sculptured, the middle lateral spines longer; head not quite so large, the eyes separated by barely more than their own width; scutellum less obtuse; elytra more parallel, sparsely and unevenly punctate, in great part having anastomosing rugæ, stronger toward base; costules strongly elevated; prosternal process gently and arcuately ascending posteriorly. Length (♀) 42.7 mm.; width 16.0 mm. Male unknown. New Mexico (Jemez Springs)...**tetricus** Csy.

Prothorax much less transverse, only about twice as wide as long, the surface differing greatly in being strongly convex, finely, unevenly and sparsely punctate throughout; head very large, parallel behind the not more prominent eyes, which are separated by much more than their own width, the median sulcus coarse and deep to the base; punctures moderate, deep and dense, nearly wanting along the middle; medio-lateral thoracic teeth with thin oblique anterior edge obtusely dentate, the posterior teeth small, spiniform and very acute; scutellum large, subangulate at tip, finely, sparsely punctate and having a deep groove abbreviated at base; elytra slightly wider than the prothorax, with feebly oblique and nearly straight sides, the surface finely, remotely punctate throughout, the three costules fine and feeble though evident; prosternum slightly dilated but horizontal posteriorly. Length (♀) 54.0 mm.; width 22.4 mm.; width of head 9.8 mm. Male unknown. Arizona. . . . . **vastus** Csy.

Prothorax even less transverse, less than twice as wide as long, similarly very convex, finely, loosely and unevenly punctate, rather more strongly toward the sides than in *vastus*, the large median tooth more recurved at the acute apex, its obtuse anterior angulation feebler; head not quite so large, the tempora very slightly diverging; eyes separated by barely more than their own width, the median channel finer and abbreviated well before the base; antennæ not quite so long; scutellum large, rounded behind, punctate, feebly impressed for a short distance just behind the middle; elytra shorter and relatively broader, the feebly oblique sides distinctly arcuate; surface finely, sparsely punctate, the costules very feeble, the outer nearly obsolete; prosternal process slightly expanded but horizontal behind. Length (♀) 47.0 mm.; width 21.7 mm.; width of head 8.5 mm. Male unknown. New Mexico (Fort Wingate). . . . . **tumidus** Csy.

3—Hind thoracic angles blunt or rounded, never spiniform. 4

Hind thoracic angles more or less acutely dentate externally. 8

4—Elytral punctures rather coarse, deep, perforate and sparse; hind thoracic angles right. 5

Elytral punctures more or less fine and shallow, less sparse. 6

5—Form parallel, color more or less pale brown, shining; head well developed; eyes large, more prominent than the tempora, separated by about half their width, a little more (♀); median channel broad, not very deep; antennæ rather long, unusually slender in the male; prothorax more than twice as wide as long, finely, loosely and unevenly punctate; two anterior teeth oblique and sharp, moderately developed; base bisinuate; elytra long, about twice as long as wide, a third wider than the prothorax, broadly rounded at tip, the parallel sides feebly arcuate; costules feeble; scutellum angulate behind (♀), rounded (♂); tarsi rather slender. Length (♂) 27.0–32.0, (♀) 36.5–41.0 mm.; width (♂) 10.5–12.8, (♀) 14.0–16.5 mm. Middle Atlantic States. *Lævigatus* Harris, *obliquicornis* (*?*) and *curticornis* (*?*) Lec., and *prolixus* Csy. . . . . **pocularis** Dalm.

Form stouter, larger in size, black, the elytra gradually becoming red posteriorly from about the middle; head nearly similar, except that the eyes are somewhat more widely separated, the mandibles longer, thicker and more strongly rounded externally, and the antennal joints shorter distally; prothorax less transverse, scarcely twice as wide as long, the sculpture and dentition nearly similar; scutellum a little larger, more obtuse and less angulate behind in the female, similarly smooth and impunctate; elytra nearly similar but less than twice as long as wide and fully two-fifths wider than the prothorax; prosternal process not horizontal apically but continuously descending. Length (♀) 47.0 mm.; width 18.0 mm, Indiana. . . . . **bicolor** Csy.

6—Head very large. Body large and unusually broad, strongly convex, blackish-

brown and shining; head three-fourths as wide as the prothorax, the tempora parallel, arcuate and slightly more prominent than the eyes, which are separated by only slightly less than their own width in the male; surface coarsely, rugosely punctate, the median groove narrow; antennæ not quite as long as the elytra, thick, gradually tapering, the joints with prominent angles; prothorax twice as wide as long, finely, loosely and unevenly punctate, the two anterior teeth at the sides sharp but rather short, the hind angles broadly rounded; scutellum large, obtusely angulate at tip, feebly impressed along the middle, rather finely but strongly, loosely punctate; elytra broad, but little over one-half longer than wide, the sides moderately oblique, feebly arcuate, the apex broadly rounded, nearly one-half wider than the prothorax, very moderately and loosely punctate, the costules very feeble; prosternal process becoming horizontal at tip; tarsi broad. Length (♂) 43.5 mm.; width 19.5 mm.; width of head 10.0 mm. Locality unrecorded. A single specimen.....**validiceps** Csy.

Head only moderately large; body smaller and narrower.....7

7—Color nearly black, rather shining; head four-sevenths as wide as the prothorax; tempora subparallel, arcuate and barely more prominent than the eyes, which are separated by three-fourths their width, the surface with very fine groove, coarsely and rugosely punctate, finely, densely rugose behind the eyes; mandibles tumid at the anterior angles; antennæ rather shorter than the elytra, much less thick than in the preceding species, the joints serrate internally; prothorax shorter, much more than twice as wide as long, strongly, closely and unevenly punctured; two anterior lateral teeth moderate, very acute, the hind angles with rounded prominent external lobe; scutellum moderate, rounded at tip, feebly impressed along the middle except apically, the punctures numerous and deep, wanting broadly toward the edges; elytra three-fourths longer than wide, two-fifths wider than the prothorax, with strongly oblique and nearly straight sides, rather finely and loosely punctate, with feeble costules. Length (♂) 38.0 mm.; width 14.4 mm.; width of head 6.8 mm. Colorado (Boulder Co.).....**consors** Csy.

Color paler brown, scarcely so shining; head four-sevenths as wide as the prothorax, the tempora converging and much less prominent than the large eyes, the latter separated by four-sevenths their width, the surface coarsely punctato-rugose, more finely at base, the median channel narrow; antennæ a little shorter than the elytra, rather thicker than in the preceding, the joints acutely prominent at apex, more strongly so internally; prothorax short, evidently more than twice as wide as long, rather finely and closely, unevenly punctate, the two anterior lateral spines very acute but short, the basal angles slightly more than right, narrowly rounded, not in the least prominent; scutellum large, parallel, broadly rounded at tip, finely and remotely punctate; elytra nearly three-fourths longer than wide, the sides only very feebly oblique and broadly arcuate, not quite a third wider than the prothorax, strongly and rather closely punctate, the costules distinct, obsolete basally. Length (♂) 35.0 mm.; width 14.0 mm.; width of head 6.5 mm. Texas (El Paso).....**texanus** Csy.

8—Head well developed as in the preceding section.....9

Head small, sometimes very notably so.....16

9—Tempora arcuate and more prominent than the eyes.....10

Tempora not more prominent than the eyes.....12

10—Prothorax slightly less than twice as wide as long; scutellum notably large. Body oblong, rather convex, blackish, the under surface, elytra and legs red-brown, rather shining; head two-thirds as wide as the prothorax, the eyes separated by slightly more than their width, the surface uneven, finely, loosely punctate at base; mandibles rather short, thick and tumid; antennæ

(♀) slender, scarcely three-fifths as long as the elytra; prothorax convex, finely but deeply, loosely and unevenly punctate, the two anterior lateral teeth sharp, slender and very moderate in length, the third triangular and reflexed; scutellum fully three-sevenths as wide as an elytron, obtusely rounded, finely, sparsely punctate; elytra parallel, with but feebly arcuate sides and very obtusely rounded apex, three-fifths longer than wide, two-fifths wider than the prothorax, sparsely and very moderately punctate, subrugose laterally, the two costules strong and unusually elevated, almost entire, the third fine and very feeble. Length (♀) 39.0 mm.; width 16.5 mm. Colorado (the locality unknown).....**solidus** Csy.

Prothorax shorter and more transverse, more than twice as wide as long; scutellum very much smaller, less than a third as wide as an elytron.....11

11—Body shining black, the legs black, with dark brown tarsi; abdomen rufotestaceous; head notably large, fully three-fourths as wide as the prothorax, the tempora strongly arcuate and very prominent; eyes separated by their own width in the male; mandibles short, oblique at apex; antennæ nearly four-fifths as long as the elytra, unusually thick basally; joints very strongly serrate internally, both apical angles being very acute; interocular surface uneven and subrugose, finely so at base; prothorax finely and loosely but unequally and in part more coarsely punctate, the two anterior lateral spines triangular, long, sharp and recurved, the third smaller, triangular; scutellum but little wider than long, rounded behind, finely and remotely punctate; elytra three-fifths longer than wide, subparallel, nearly one-half wider than the prothorax, the three costules rather narrow and feeble but distinct, the two inner almost attaining the base; punctures moderate, close and uneven, the surface rugulose. Length (♂) 39.0 mm.; width 15.5 mm. Utah (Trout Creek, Ibapah Mts.),—Spalding.....**serriger** n. sp.

Body somewhat less shining, castaneous, the abdomen rufous; metasternum rather densely pubescent, though less so than in *serriger;* head not so large, a little less than three-fourths as wide as the smaller prothorax; arcuate tempora not quite so prominent; eyes separated by two-thirds their width in the male; surface subrugose and uneven, with a fine median stria; mandibles sharply bent; antennæ not so thick as in *serriger*, the joints acutely serrate internally, about four-fifths as long as the elytra, red-brown in color; prothorax similar in form but smaller, the lateral teeth longer and more spiniform, very acute; surface strongly and loosely punctate, transversely impunctate at the middle; scutellum obtusely semicircular, finely, sparsely and unevenly punctate; elytra more oval, not quite so long, the sides more arcuate, rather more than one-half wider than the prothorax, smooth, finely and sparsely punctate throughout, the two inner costules fine and feeble, not attaining the base, the third subobsolete; anterior tarsi not so strongly dilated. Length (♂) 39.0 mm.; width 15.9 mm. Utah (Eureka),—Spalding. **suspectus** n. sp.

12—Tempora feebly arcuate and rapidly converging to the base. Oblong, shining, castaneous; head three-fourths as wide as the prothorax, coarsely rugose, less so basally, the eyes separated by about four-sevenths their width; mandibles moderately oblique distally; antennæ moderately thick, not quite three-fourths as long as the elytra, the serrate joints rather prolonged internally, briefly and more acutely so externally, at tip; prothorax twice as wide as long, coarsely, loosely punctate, almost impunctate medially, the two anterior lateral teeth strong, acute and recurved, the posterior prominent, triangular, with the tip somewhat blunt; scutellum moderate, semicircular, finely but strongly, sparsely punctate; elytra four-sevenths longer than wide, nearly one-half wider than the prothorax, subparallel, with gradually rounded apex; surface smooth, rather finely and sparsely

punctate, with the costules fine but distinct, not attaining the base, the third feebler; metasternum densely pubescent; abdomen rufous; anterior male tarsi only very moderately dilated. Length (♂) 40.0 mm.; width 16.3 mm. Utah (Eureka),—Spalding.....**orbiceps** n. sp.

Tempora parallel behind the eyes.....13

13—Elytral humeri slightly more than right but very narrowly rounded and conspicuous. Surface rather shining, pale red-brown throughout; head somewhat smaller, two-thirds as wide as the much smaller prothorax, the eyes more evidently prominent than the tempora, separated by nearly three-fourths their width, the surface strongly, loosely punctato-rugose, with a broad deep median groove, much deeper than in either of the two preceding; mandibles rounded externally, with barely a trace of angulation; palpi long, rufous as usual; prothorax slightly more than twice as wide as long, rather closely but unequally punctate, biimpressed near the base, also at the middle of the base and feebly along the apex; lateral spines very acute, the median longer and more recurved, the posterior small but very acutely triangular; scutellum rather narrow, parabolic, with small sparse punctures; elytra three-fourths longer than wide, nearly one-half wider than the prothorax, the sides distinctly oblique and but feebly arcuate; costules fine and feeble, obsolete basally; punctures rather strong and close-set, the surface smooth; metasternum densely and conspicuously ochreo-pubescent. Length (♂) 38.0 mm.; width 13.7 mm. California (the locality unrecorded).
humeralis n. sp.

Elytral humeri distinctly rounded as usual.....14

14—Surface of the elytra alutaceous, dark castaneous, the abdomen slightly paler, shining as usual; head two-thirds as wide as the prothorax, the eyes separated by fully three-fourths their width; mandibles angulate, much prolonged and acute at tip; antennæ four-fifths as long as the elytra, moderately serrate, thick basally; prothorax rather more than one-half wider than long, deeply, loosely punctate, impunctate medially, the two anterior lateral spines slender and recurved apically, only moderately long, the posterior small, acutely triangular; scutellum subquadrate, moderately but deeply, sparsely punctate; elytra long, nearly twice as long as wide, the sides distinctly oblique and nearly straight; costules feeble, obsolescent but widest basally; punctures rather small but deep, widely separated; metasternum densely pubescent; anterior male tarsi only moderately dilated. Length (♂) 42.5 mm.; width 15.5 mm. Arizona.....**alutaceus** Csy.

Surface more or less shining, never alutaceous.....15

15—Body (♂) subparallel, convex, castaneous in color. Head with median furrow, the eyes very large but only slightly prominent; mandibles very short; antennæ only half as long as the body, serrate internally; prothorax very transverse, acutely tridentate at the sides, the teeth recurved, the middle one the longest; scutellum elongate, rounded and shining, with a few impressed punctures; elytra broader than the prothorax and six or seven times as long, oval, convex, rugulose (♂), parallel, slightly depressed and smoother (♀); costules three in number, entire, alternately uniting before the apex. Length 56 mm. (28 l.); width 14 mm. (7 l.). Sitka and California (northern). The width is probably erroneously stated by the describer.
californicus Mots.

A—Not quite so large, similarly punctate, paler castaneous; two anterior teeth of the prothorax very acute, curved, the posterior triangular and much smaller; abdomen red; metasternum closely and finely pubescent; antennæ very stout, tapering distally as usual. Length 45.0–52.5 mm. Oregon.....**crassicornis** Lec.

B—Nearly similar to *crassicornis* but much smaller and with the male antennæ

less thick, castaneous in color, rather shining; head rugosely punctate, the eyes separated by their own width to a little less, the median channel shallow and imperfect; antennæ more than half as long as the body, very moderately thickened basally; mandibles rapidly turned inward apically; prothorax more than twice as wide as long, the acute median teeth but slightly recurved, the posterior small and acute; surface unevenly and moderately punctate; scutellum slightly transverse, parallel, very obtusely rounded at tip, finely, remotely punctate; elytra very little less than twice as long as wide, the sides feebly arcuate, only slightly oblique; punctures strong and deep, close-set and more or less rugose; two inner costules strong and virtually attaining the base; metasternum densely pubescent; abdomen red; anterior and middle male tarsi broad. Length (♂) 30.0–42.0 mm.; width 12.6–16.0 mm. Utah (Provo),—Spalding. Seven specimens. The female unknown..... **compar** n. subsp.

C—Larger than either of the two preceding, shining, castaneous, with the usual red abdomen and pubescent metasternum; head and antennæ nearly as in the preceding; eyes (♂) separated by distinctly less than their own width; antennæ rather thick, serrate internally; prothorax more than twice as wide as long, finely, loosely and unevenly punctate, the middle spine longest, acute and recurved at tip, the basal broadly triangular, acute; scutellum angulate at apex; elytra nearly twice as long as wide, three-sevenths wider than the prothorax, rather closely but not at all coarsely punctate, the costules very feeble. Length (♂) 45.5 mm.: width 18.0 mm. Texas (El Paso)..... **curvatus** Lec.

D—Smaller, much more oval, strongly convex and blackish-castaneous, shining; head two-thirds as wide as the prothorax, the parallel arcuate tempora fully as prominent as the eyes, which are separated by about their own width, the punctate intermediate surface with two raised lines anteriad and a feeble median sulcus posteriad fully to the base, the sulcus almost impunctate; mandibles truncate at tip; antennæ nearly as in *compar* but blacker; prothorax also nearly as in that species but more closely punctate; scutellum nearly similar but more impressed medially, more finely, sparsely punctate; elytra differing much in shape, only four-sevenths longer than wide, broad, oval, attenuately rounded behind, one-half wider than the prothorax; surface shining but rugose, strongly and deeply, conspicuously punctate, not very sparsely, the costules strongly elevated; terminal spines short but very acute; anterior tarsi rather feebly dilated. Length (♂) 36.5 mm.; width 15.0 mm. Utah (North Fork, Provo Cañon),—Spalding..... **ovipennis** n. subsp.

Body nearly similar in general structure and appearance, but with the elytra sparsely and very much more finely punctate; head with feeble median furrow; form stout, oblong and convex, smooth, shining and testaceous, the head and prothorax blackish; mandibles transversely arcuate at tip; antennæ (♀) slender, serrulate, less than half as long as the body; eyes separated by more than three-fourths their width; prothorax more than twice as wide as long, convex, distinctly punctate, impunctate in two median discal areas; two anterior spines very slender, the posterior a mere sharp angularity; scutellum well developed, rounded, finely, sparsely punctate; elytra three-fourths longer than wide, fully one-half wider than the prothorax, with feebly oblique and nearly straight sides and broadly obtuse apex, the sutural angles finely spiculate; punctures notably fine and sparse, the costules rather feeble but evident, obsolete basally; metasternum more finely and sparsely pubescent than in the preceding forms. Length (♀) 45.0 mm.; width 19.5 mm. Arizona (Cañon of the Colorado).

spiculosus Csy.

A—Form less stout, the prothorax smaller and less convex, testaceous and shining; bulbose sides of the front near the antennæ more prominent than usual and separated by a deep cleft; antennæ (♂) rather thick, strongly tapering and internally serrate; eyes large and prominent, separated by less than half their width; prothorax scarcely more than twice as wide as long, deeply biimpressed near the base, unevenly punctate, the lateral spines rather short but very acute, the two anterior equally prominent, the posterior a feebly prominent angle; scutellum subparallel, very obtusely rounded behind, finely and remotely punctate; elytra about twice as long as wide, finely, sparsely punctate, with nearly obsolete costules, the sutural spine very short; metasternal pubescence not dense, longer than in the preceding. Length (♂) 38.5 mm.; width 15.5 mm. Arizona (probably southern).....**fissifrons** Csy.

B—A little shorter and stouter than the preceding, convex, darker castaneous, the abdomen rufous; surface shining; head fully two-thirds as wide as the prothorax, coarsely, unevenly punctate, more finely, densely and rugosely so basally; eyes not so prominent, separated by nearly three-fourths their width in the male; mandibles obliquely truncate at tip; anterior convexities of the front not so elevated and much less sharply or deeply separated; antennæ nearly three-fourths as long as the elytra, very moderately thick, serrate internally but not very obliquely, the outer angles acute and prolonged; prothorax twice as wide as long, sparsely and unevenly punctate; middle spine longer and more oblique than the anterior, the posterior simply a moderate angulation, the anterior slope of which has a small angulate prominence in the type; scutellum broadly obtuse, finely and sparsely punctate, the surface peculiarly biimpressed at apex; elytra three-fourths longer than wide, nearly one-half wider than the prothorax, the sides subparallel, gradually converging behind, the apex only moderately obtuse; punctures moderate, deeply impressed, remotely separated; metasternum nearly as in the preceding. Length (♂) 38.5 mm.; width 16.5 mm. Colorado (Boulder Co.),—Mrs. T. L. Casey.

coloradensis n. subsp.

16—Mandibles tumid and strongly rounded externally. Body broadly oblong, moderately convex, shining and castaneous, the under surface more rufous; head a little more than half as wide as the prothorax, with fine median groove; eyes as prominent as the slightly arcuate tempora, separated by four-fifths their width; antennæ (♀) moderately slender, rather more than half as long as the body; prothorax short, finely, rather sparsely, irregularly punctate; median lateral spine much the longest, very acute, oblique, the posterior rather high and dentiform; scutellum wider than long, obtusely rounded, finely, loosely punctate and with a fine canal for a short distance at the middle; elytra three-fifths longer than wide, parallel, gradually rounding behind, one-half wider than the prothorax, finely and remotely punctate, the two inner costules fine but rather strong, not quite attaining the base. Length (♀) 45.0 mm.; width 17.0 mm. New Mexico (Jemez Springs).....**acomanus** Csy.

A—Narrower and paler testaceous, smooth and shining, similarly punctate; head and mandibles nearly similar, the median groove abrupt, wide and deep anteriorly; eyes a little less separated; antennæ (♀) shorter and more slender, somewhat less than half as long as the body; scutellum narrower and triangular, with slightly arcuate tip, smooth, even, finely and remotely punctate; elytra nearly twice as long as wide, sparsely but rather more strongly punctate, the two inner costules still more evident, almost attaining the base. Length (♀) 39.0 mm.; width 15.5 mm. New Mexico (Fort Wingate).....**proximans** Csy.

Mandibles not tumid externally....17
17—Head moderately small....18
Head very notably small; body smaller in size, including the smallest of the subgenus....22
18—Scutellum with a fine deep and entire median channel. Form elongate and convex, narrowly suboval, pale brownish-testaceous; head evidently more than half as wide as the prothorax; tempora as prominent as the very moderate eyes, which are separated by their own width; surface coarsely subrugose; antennal tubercles separated, mandibles becoming transverse at apex; antennæ (♀) moderately slender, fully half as long as the body, serrate internally as usual; palpi long, rufous; prothorax relatively rather small, twice as wide as long, sparsely, moderately but deeply and unevenly punctate; median tooth not much longer than the externally oblique anterior, both very sharp, the posterior tooth obtusely triangular, rather long; scutellum barely wider than long, rounded behind, convex, with fine punctures, forming irregular rugosity; elytra not quite twice as long as wide, one-half wider than the prothorax, unusually convex, parallel, rapidly and obtusely rounded at tip, the sides very feebly arcuate; surface shining, rugose, finely, sparsely punctate, the three costules distinct; metasternal pubescence fine and not very dense, the surface rather shining. Length (♀) 36.5 mm.; width 15.0 mm. Utah (Provo Cañon),—Spalding....**scutellaris** n. sp.
Scutellum normal, flat....19
19—Body dark castaneous to testaceous....20
Body smaller, black, the elytra more attenuately oval....21
20—Form somewhat narrow, long and parallel, rather shining, pale brownish-testaceous in color; head barely more than half as wide as the prothorax, the eyes more prominent than the tempora, separated by about three-fifths their width, the intermediate surface somewhat trisulcate, coarsely rugulose; antennæ (♂) rather long, only moderately stout, gradually serrate and tapering; prothorax short, more than twice as wide as long; surface somewhat uneven, strongly and closely punctate—more sparsely in the Utah specimens—the lateral teeth acutely triangular, only moderate in length, the posterior obtusely but sharply dentiform; scutellum rather small, sparsely punctate; elytra two-thirds longer than wide, twice as long as wide in the female, rather finely and more or less closely punctate, the two inner costules distinct, generally with a feebler intermediate costule; metasternum with long and dense, ochreous pubescence. Length (♂) 28.5–32.5, (♀) 29.0–33.0 mm.; width (♂) 11.4–12.5, (♀) 12.0–13.0 mm. California and Utah (Eureka)....**ineptus** Csy.

A—Rather less elongate and less convex, shining and dark castaneous, differs from the typical *ineptus* in the relatively smaller prothorax and more strongly and deeply punctured and more rugulose elytra; eyes (♂) separated by their own width; antennæ (♂) long, about as long as the elytra, not strongly thickened basally; scutellum nearly similar; elytra three-fourths longer than wide, less convex and nearly two-thirds wider than the prothorax; costæ rather finer and less elevated. Length (♂) 30.5 mm.; width 11.8 mm. Utah (Eureka),—Spalding. Seven specimens. **ambiguus** n. subsp.

B—Form parallel, narrower than in either of the preceding, shining and testaceous throughout; metasternal pubescence long but not quite so dense or coarse; head small though two-thirds as wide as the much smaller and shorter prothorax, which is more than twice as wide as long and finely, sparsely and unevenly punctate; eyes separated by three-fifths their width, the intermediate surface flatter and less coarsely punctate than usual; mandibles transverse at apex; antennæ (♂) long, about as

long as the elytra, strongly serrate, only moderately thickened basally; thoracic teeth triangular, acute and conspicuous, the posterior shorter; elytra twice as long as wide, nearly straight at the sides, one-half wider than the prothorax, with moderate, deep and well-separated punctures, the costules very feeble. Length (♂) 30.5 mm.; width 10.8 mm. Arizona (Grand Cañon of the Colorado)..... **angustulus** Csy.

C—Body more abbreviated, only moderately convex, castaneous and shining; head barely half as wide as the prothorax; eyes well separated; antennæ (♂) about as long as the elytra, very moderately thickened basally, the joints evidently serrate, acutely so externally; prothorax somewhat more than twice as wide as long, very shining, finely and loosely punctate, broadly impunctate medially; spines moderate, acute, the anterior broadly oblique externally, the middle slender, slightly recurved, the posterior short, bluntly triangular; scutellum very obtusely rounded, shining, sparsely punctulate; elytra scarcely three-fifths longer than wide, the sides just perceptibly arcuate and feebly oblique; two inner costules sharply elevated and approximate; punctures coarser, deeper and closer than in any of the three preceding, the surface rugulose but shining; terminal spines very short and triangular but acute; anterior tarsi only slightly dilated (♂). Female broader than the male, with relatively smaller head, the elytral surface subsimilar; antennæ wanting in the single type. Length (♂ ♀) 27.5–33.0 mm.; width 11.5–14.0 mm. Utah (North Fork, Provo Cañon),—Spalding..... **uintanus** n. subsp.

Form broader, more oval, convex, not quite so shining, castaneous, the abdomen paler; head a little larger, three-fifths as wide as the prothorax; eyes separated by a little more than half their width; antennæ (♂) unusually long, moderately thickened basally, as long as the elytra, the outer joints long, serrate as usual, really 13-jointed, the thirteenth joint distinct and isolated on the left antenna, that on the right apparently subanchylosed with the twelfth joint; prothorax more than twice as wide as long, biimpressed near the base, moderately and loosely punctate, in part impunctate, the anterior spine small, aciculate, the middle moderate, much longer than the first, very acute and somewhat recurved, the posterior very acute, dentiform; elytra with arcuate oblique sides, three-fifths longer than wide, less than one-half wider than the prothorax, rather finely, sparsely punctate, the costules very feeble; metasternum with coarse ochreous pubescence; anterior tarsi moderately dilated, a little broader than in the preceding. Length (♂) 33.5 mm.; width 12.8 mm. Arizona (Cañon of the Colorado). **terminalis** Csy.

Form more elongate, convex, rather shining, testaceous-brown in color, head slightly more developed, fully three-fifths as wide as the prothorax; eyes well separated; antennæ (♀) slender, only about three-fifths as long as the elytra; prothorax less transverse than in any of the four preceding, only about twice as wide as long, very finely, loosely punctate and partially impunctate; two anterior spines very acute, the middle longer than in any of the four preceding, the anterior not one-half as long, the posterior triangular and much smaller; scutellum very obtuse, finely, sparsely punctate; elytra not quite twice as long as wide, almost one-half wider than the prothorax, the sides parallel, gradually rounding behind, the three costules very moderate; punctures fine, well separated; terminal spines moderate; sternal pubescence very dense, yellowish. Length 33.5 mm.; width 14.0 mm. Arizona (probably southern)..... **punctulatus** Csy.

Form oblong-elongate, much larger than any of the preceding forms of this section, dark castaneous, shining. Male with the head fully three-fifths as wide as the prothorax, much narrowed behind the eyes, which are convex and separated by rather more than half their width; surface coarsely punctate,

acutely bilineate anteriorly; mandibles abruptly truncate at apex; antennæ long, four-fifths as long as the elytra, only moderately thickened basally, moderately obliquely serrate distally; prothorax scarcely twice as wide as long, biimpressed near the base, moderately, loosely and unequally punctate, the two anterior spines very acutely triangular, recurved, the second the longer, the posterior rather elongate, triangular; scutellum as long as wide, more or less subangulate at apex, moderately and loosely punctate; elytra parallel, gradually rounding behind, three-sevenths wider than the prothorax, with small and slender apical spines, feebly rugose, finely, loosely punctate, the costules rather feeble; anterior tarsi moderately dilated. Female larger than the male but otherwise nearly similar, the eyes a little more widely separated; antennæ long, moderately slender; thoracic spines more unequal, the second notably long; elytra twice as long as wide; abdomen bright rufous as in the male. Length (7 ♂) 30.0–38.0, (6 ♀) 35.0–41.5 mm.; width (♂) 11.7–14.5, (♀) 13.0–16.0 mm. Utah (Eureka),—Mr. Tom Spalding. It also occurs in Boulder Co., Colorado. Thirteen specimens.

spaldingi n. sp.

21—Oblong-oval, strongly convex, rather shining and black, the abdomen piceous; head small, scarcely over half as wide as the prothorax, the tempora as prominent as the eyes, which are separated by nearly two-thirds their width; median line fine and shallow; mandibles rather small, rounded externally; antennæ somewhat slender, four-fifths as long as the elytra, very moderately serrate and dark brown distally; prothorax nearly twice as wide as long, sparsely, moderately and unevenly punctate, the lateral spines sharply triangular, rather short, the apical and basal the smallest; scutellum moderate, obtusely rounded, loosely punctate; elytra three-fifths longer than wide, a little less than one-half wider than the prothorax, feebly suboval, the punctures small and widely spaced, the two inner costules fine but very evident, the third almost obsolete; tarsi brown, the anterior narrowly dilated. Length (♂) 28.0 mm.; width 11.5 mm. New Mexico (Jemez Springs). One specimen—formerly attached to *tristis* but evidently distinct.

fontinalis n. sp.

22—Body (♂) much narrower, parallel, moderately convex, shining and pale reddish-brown; head three-fifths as wide as the prothorax, the eyes much more prominent than the tempora and separated by about half their width, the intermediate surface flat, punctato-rugose; mandibles narrower, more truncate at apex; antennæ rather slender, obliquely moderately serrate, not quite as long as the elytra; prothorax very moderate, somewhat more than twice as wide as long, finely, sparsely, unequally and unevenly punctate; two anterior spines triangular, acute, only moderate in size, the second a little longer than the first, the basal very small, subspiniform; scutellum slightly wider than long, broadly obtuse at tip, finely and remotely punctate; elytra about twice as long as wide, parallel, with just visibly arcuate sides and rapidly rounded apex; surface rugulose though shining, the punctures loose, deep and uneven; two inner costules rather strong, with one intermediate but feeble, the outer costule very feeble; terminal spines sharp but short; sterna pubescent as usual; anterior tarsi rather narrowly dilated. Female larger but otherwise nearly similar, the head notably small, with the eyes separated by half their width; antennæ slender, two-thirds as long as the elytra, slightly broader, flatter and serrulate distally; elytral costules feebler. Length (♂ ♀) 24.0–27.0 mm.; width 9.3–11.0 mm. Utah (Eureka), —Spalding. Three specimens. . . . . **stultus** n. sp.

A—Nearly similar in form but almost black, with rufo-castaneous anterior parts and antennæ; head small, though fully two-thirds as wide as the unusually small prothorax, which is barely twice as wide as long, the

punctures still finer and sparser, the lateral teeth almost similar; scutellum narrow, more obtuse at apex, polished and very nearly impunctate; elytra almost similar, but fully three-fourths wider than the prothorax and with more minute and triangular apical spines; punctures finer and sparser, the costules feebler; antennæ not quite as long as the elytra, the joints more strongly serrate, with the oblique sides notably long. Length (♂) 26.0 mm.; width 10.3 mm. Utah (Eureka),—Spalding.

parvicollis n. subsp.

Body very small, elongate, strongly convex, castaneous and shining, the prothorax and under surface paler and rufous; head almost three-fifths as wide as the prothorax, the eyes convex, much more prominent than the tempora and separated by three-fifths their width, the intermediate surface coarsely punctate, not furrowed; mandibles rather small, slender; antennæ notably slender, as long as the elytra, strongly serrate internally; prothorax moderate, more than twice as wide as long, loosely and moderately punctate; median spine large, the very acute apex recurved, the apical tooth very small, acute at tip, the basal scarcely more than a right angle, very sharp; scutellum moderate, parallel, transverse, very obtusely rounded at tip, feebly and sparsely punctate; elytra very nearly twice as long as wide, parallel, with feebly arcuate sides and obtusely rounded apex, the three costules strong, the two inner rather close, with one feebler intermediate; surface feebly rugose, the punctures strong and deep, moderately separated; terminal spines minute, not slender; sterna coarsely pubescent; anterior male tarsi narrow. Length (♂) 20.8 mm.; width 8.3 mm. Utah (Eureka),—Spalding.

nanus n. sp.

The principal landmarks in this subgenus are the *heroicus* and *vastus* sections, *pocularis*, *validiceps*, *solidus*, *serriger*, *alutaceus*, *californicus*, *scutellaris*, *spaldingi* and *nanus* species or sections, although most of the others here defined seem to be well isolated in various directions. It is a large and difficult subgenus and knowledge of it is scarcely more than begun. I have derived a great deal of help from the material sent in by Mr. Spalding.

GROUP III

Subgenus **Neopolyarthron** Semen.

Riponus Csy.

Of the described forms in this subgenus occurring north of the Mexican boundary, there are at present four distinct and valid species, viz., *imbricornis* Linn., with subspecies *brunneus* and *mimus* and the species *cuneatus*, *diversus* and *debilis* Csy. The following is also to be added as an isolated species:

Prionus (Neopolyarthron) robustus n. sp.—Female broadly oblong-suboval, convex, shining, blackish-castaneous, the under surface and legs dark rufous; head large, four-sevenths as wide as the prothorax; eyes barely more prominent than the parallel tempora, moderately convex and separated by nearly a third more than their own width, the interval smooth, finely grooved, strongly, closely punctate toward the eyes, sparsely at base; mandibles very stout, oblique at

apex; antennæ three-fifths as long as the elytra, 19-jointed; prothorax short, very transverse, fully two and one-half times as wide as long, smooth, moderately and loosely punctate peripherally; anterior tooth very oblique externally, short, the second short, acute, triangular and recurved; sides forming a slightly obtuse angle with the base and not at all prominent: scutellum twice as wide as long, broadly angulate at tip and with a very few small punctures; elytra not quite one-half longer than wide, only a fourth wider than the prothorax, the sides arcuate and feebly oblique, the apex broadly rounded; surface feebly rugulose, rather finely, remotely punctate, the two costules very low and obtuse; sutural spine small and very obtuse. Length (♀) 37.0 mm.; width 17.5 mm. North Carolina (Southern Pines),—Manee. One specimen.

This very remarkable species does not seem to be closely allied to any other, a female of *diversus* being its closest relative known to me, but there the mandibles are smaller, the eyes separated by somewhat less than their width, the antennæ 15-jointed and the scutellum very different, being but little wider than long, obtusely parabolic and with numerous punctures. In this female of *diversus* the sides of the prothorax between the median tooth and the base are slightly oblique and with a broadly angulate median projection; in the male, which is smaller and narrower, with stronger punctures and 16-jointed antennæ—more slender than in *robustus* —this angulate projection is minute and feeble. The antennal joints are less numerous in the female than in the male, and this is especially true in the next subgenus. The anal segment here is more briefly bifurcate than in *Prionus* proper.

GROUP IV

Subgenus **Antennalia** Csy.

In the subgenus *Neopolyarthron* the female is very rare in comparison with the male, and I have seen but two specimens of that sex. In *Antennalia*, however, it is the female which is taken in much greater abundance than the male. The three described species *fissicornis* Hald., and *transversus* and *parviceps* Csy., seem to be widely unrelated among themselves and the following is also very distinct, having, among other differences, broader externally angulate anal stylets in the female.

Prionus (Antennalia) thoracicus n. sp.—Female oblong-suboval, convex, shining, blackish-castaneous throughout above and beneath; legs black, the tarsi not paler; head well developed, two-thirds as wide as the prothorax, the eyes moderate, rather feebly convex and no more prominent than the short parallel tempora; they are separated by two-fifths more than their width, the interval with a deep median groove and numerous moderate scattered punctures, with a large median smooth area behind the centre; mandibles moderate, very obliquely rounded externally; palpi piceous; antennæ nearly three-fifths as long as the elytra, slender and 20-jointed; prothorax not quite twice as wide as long,

finely, loosely and subequally punctate throughout, more coarsely and densely near the sides, the apical angles rounded, not spinose, the middle of the sides with a large and very broad triangular tooth, the sides thence oblique and nearly straight to the obtuse basal angles; scutellum a little wider than long, subparallel, broadly and obtusely angulate at tip and with very few fine punctures, wholly wanting toward the edges; elytra a little over one-half longer than wide, only a fifth or sixth wider than the prothorax, finely, sparsely punctate, more strongly toward apex and with two feeble costules; sides oblique and feebly arcuate. Length (♀) 33.5 mm.; width 12.6 mm. Colorado (Akron),—H. L. Shantz.

The prothorax is much less transverse and with larger median tooth than in any other species. The female which I have placed with my only male of *fissicornis* is much smaller than the male but is similarly testaceous-brown in color; it is from an unrecorded locality in Colorado, the male being from Texas; they may not be specifically identical, but this cannot be determined at present.

Archodontes Lamr.

The species of this genus are much thicker and more convex than those of *Mallodon* and display but little sexual difference even in the mandibles; the antennæ are somewhat longer in the male but there is only slight difference in the prothorax. The large *melanopus* Linn., is not rare in Florida and of *cilipes*, which is narrower and not quite so large, I have a single male from Texas. The following is still much smaller:

Archodontes aridus n. sp.—Narrower than *cilipes*, convex, parallel, shining and black, the tarsi brownish; head (♂) large, more than two-thirds as wide as the prothorax, with coarse loose punctures, becoming finer and denser basally, impunctate and finely grooved medially; eyes moderate, scarcely convex, shorter than the parallel tempora and separated by between twice and three times their width, the short strongly punctate mandibles with the incurved, sinuato-truncate apex, which is longer than the direct distance thence to the base; antennæ slender, red-brown, about three-fifths as long as the elytra, the third joint a little more than twice as long as wide, the ninth about three times as long as wide; prothorax two-thirds wider than long, the sides obtusely and irregularly crenate, rounded at apex, finely dentate at base and thence oblique and straight to the median part of the base; surface smooth and partially punctate and with four feeble impressions medially, sloping, coarsely and densely punctate and with two small and nearly smooth elevations laterally, the inner—near the smooth part—the larger; scutellum very moderate, as wide as long, parabolic, with small apical sinus and minutely, remotely punctulate; elytra twice as long as wide, equal in width to the prothorax, loosely and moderately punctate, also feebly rugose in great part; terminal spines minute; surface very nearly even; anterior tarsi rather narrowly dilated. Length (♂) 31.0 mm.; width 11.0 mm. Arizona (probably southern). One specimen.

The anterior male tarsi are much less dilated than in *melanopus* or *cilipes*. The tibiæ are densely fringed internally with short white hairs as in all the other species. The antennæ in *aridus* are shorter and more slender than in either of the other species.

Mallodon Serv.

I do not think that this can be considered a subgenus of the preceding, for the body is much more depressed and the mandibles differ very much sexually. The following species is very different from any other in my collection and is probably undescribed:

Mallodon castaneum n. sp.—Male rather narrow, parallel, subdepressed, in great part smooth and polished and dark castaneous in color; head large, nearly four-fifths as wide as the prothorax, the eyes short, scarcely more than half the length of the long parallel and equally prominent tempora, separated by three or four times their width; surface very coarsely, densely, rugosely punctate, smooth medially but with a large and densely rugose area anteriorly; median line fine; mandibles feebly arcuate, gradually tapering and as long as the head, prominent along their median line and strongly, closely punctate, with a strong oblique inner tooth near apical fourth; antennæ about half as long as the body, slender, the third joint two and one-half times as long as wide, the eleventh deeply and longitudinally strigose; prothorax nearly twice as wide as long, the sides subparallel, very strongly, acutely and irregularly serrate; surface smooth, with a few small punctures centrally, the sides steeply sloping, very coarsely and densely punctato-rugose, with a smooth narrow prominent line medially of the length and very close to the central polished area; scutellum nearly smooth, polished and broadly parabolic; elytra four-fifths longer than wide, only just visibly wider than the prothorax and very smooth; anterior tarsi rather narrowly dilated. Female larger and broader, paler castaneous, shining but not so smooth; head nearly three-fourths as wide as the prothorax, the tempora less prominent than the eyes, about as long as the latter; surface coarsely and loosely punctate throughout, more sparsely toward the fine median line, which terminates anteriorly in a large deep fovea and without trace of the two irregular rugose areas of the male; mandibles two-thirds as long as the head, rapidly bent apically and with a single internal tooth; they are coarsely setose within and much less densely so than the apical margin of the front; antennæ slender, less than half as long as the body; prothorax less transverse, scarcely three-fourths wider than long; surface nearly as in the male but with narrower lateral slopes, the marginal spines much longer, more regular and very aciculate; elytra longer and broader, two-fifths wider than the prothorax, the surface finely, feebly and loosely punctulate; anterior tarsi less parallel, the third joint relatively much broader. Length without mandibles (♂) 31.0, (♀) 37.0 mm.; width (♂) 11.0, (♀) 14.0 mm. Lower California (San Felipe—♂ and Sta. Rosa—♀).

The sexual differences in the head are more pronounced than in *dasystomum* Say, but are far less in the prothorax. The type specimen is the male; it is allied to *baroni* Csy., more closely than to any other in my collection, but differs in the more abbreviated male, having relatively much longer mandibles.

Tragosoma Serv.

The European species, *depsarium*, is quite different from *harrisi* Lec., and the two are not subspecifically related, the former is much smaller than *harrisi*, with rather smaller head and narrower prothorax, in which the sides anterior to the very small and more

abrupt median tooth are arcuate and less oblique; the male antennal joints are less elongate and the elytral tips are truncate toward the suture and not rounded as they are in *harrisi;* the latter is moderately abundant from Lake Superior to Colorado. The single types of *spiculum* and *pilosicornis* do not bear the slightest resemblance to *harrisi* and are manifestly distinct species; the prothorax is notably small, moderately punctate, sparsely pubescent, with the spine very abrupt, finely aciculate and well behind the middle, with the sides before and behind the spine nearly straight and feebly oblique in *spiculum*, and large, very much wider, strongly, loosely punctate, with the spine much less abrupt, median and with the straight sides before and behind the latter much more oblique in *pilosicornis*. It is true that *spiculum* is represented by the male and *pilosicornis* by the female, but there is no suggestion of parallel sexual differences in *harrisi*, of which I have a good series of both sexes. The following is still another species:

Tragosoma repens n. sp.—Very elongate, parallel, rather shining and pale castaneous; head (♂) small, the eyes separated by rather more than half their width, the mandibles small; antennæ long and very slender, glabrous, three-fifths as long as the body; prothorax small, fully three-fourths wider than long, with fine and deep, close but discrete punctures and rather sparse long setæ, the lateral spine triangular, sharp and median, the sides before and behind it feebly oblique; scutellum small and rounded, rugulose; elytra almost two and one-half times as long as wide. four-fifths wider than the prothorax, the sides parallel and straight; apex rapidly rounding; punctures coarse, deep, close and uneven, the costules rather strong, uneven; anterior tarsi rather narrow; fifth ventral obtuse, very feebly impressed medially toward apex. Length (♂) 24.5 mm.; width 8.0 mm. Utah (southwestern).—Weidt.

The body is more elongate than in the male of *spiculum* and with the antennæ more slender and not gradually tapering as it is in that species; the elytra are more densely and unevenly rugose. This species has been named in my collection for many years but evidently I neglected to publish it.

It is probable that *Orthosoma spadix* is the female of *brunneum*, but *amplians* is probably a subspecies, also represented by the female only.

Spondylis Fabr.

The following is by far the smallest species known to me and may be recognized very readily by its narrow form and very dense sculpture of the posterior parts of the elytra:

Spondylis parva n. sp.—Slender, parallel, convex, moderately shining and deep black throughout. Head (♀) fully three-fourths as wide as the prothorax, very densely and deeply punctate, the eyes small, slightly prominent; palpi very

short; antennæ thick, cylindric, extending but slightly behind the scutellum, joints 2–4 smaller than those that follow, the tenth joint not quite one-half longer than wide; prothorax almost as long as wide, the sides broadly rounded, convergent and straighter behind the widest section near apical third; punctures moderate but deep, rather close-set, but not dense; scutellum small, arcuately triangular, finely punctate; elytra nearly two and one-half times as long as wide, parallel and straight at the sides, rapidly rounding at apex, about a fifth wider than the prothorax; surface with three feeble raised lines; punctures moderate, deep, close and irregular, gradually becoming smaller and very dense toward apex; legs rather short and thick. Length (♀) 11.0 mm.; width 3.4 mm. Washington State (Puget Sound).

This species may be placed near *basalis* but is much smaller and narrower and with the sides of the prothorax not at all sinuate at base.

Asemum Esch.

Asemum mœstum Hald., common in our northeastern regions, is of a brownish-black color; the following has the integuments of an intense black:

Asemum carolinum n. sp.—Body elongate, parallel, black, dull, the anterior parts more shining; head (♂) rather small, scarcely three-fifths as wide as the prothorax, the eyes transverse, only moderately prominent; front deeply and densely punctate, feebly impressed centrally and more narrowly thence to the base; mandibles very small as usual; antennæ three-sevenths as long as the body, notably thick, only feebly attenuate distally, the first joint thickest, nearly twice as long as wide, 3–5 fully twice as long as wide, the fourth very slightly the shortest; prothorax two-fifths wider than long, the sides parallel, strongly, evenly arcuate; surface very feebly impressed centrally, moderately and closely granularly punctate; scutellum rather wider than long, subcircularly rounded behind, rather finely, somewhat loosely punctate; elytra a little less than two and one-half times as long as wide, the sides straight and parallel, the apices individually rounded, a fifth to seventh wider than the prothorax; surface with the costæ rather strong but obtuse, alternating with finer and feebler ones, the intervals with large irregular indentations; surface finely, densely punctate; pubescence blackish, very short and indistinct; legs slender and rather short, the anterior femora moderately thick. Length 11.5–13.0 mm.; width 3.6–4.3 mm. North Carolina (Southern Pines),—Manee.

Differs from *mœstum* in its blacker coloration, slightly thicker antennæ, less elongate in the male and particularly in the less transverse prothorax, with parallel and evenly rounded sides, the latter being more prominent behind the middle in *mœstum*, which seems also to be more northern in distribution.

I should be disposed to identify this species as *australe* Lec., were it not that the prothorax is said to be punctate medially in the latter, the sculpture is uniform in *carolinum*.

Asemum stocktonense n. sp.—Parallel, moderately convex, feebly shining, black, with red-brown elytra and piceous-brown legs, with black femora; head (♂) moderately large, two-thirds as wide as the prothorax, feebly and unevenly

impressed medially and closely roughly punctate, the transverse eyes rather prominent; antennæ slender, a little less than half as long as the body, black, gradually pale red-brown distally, the fifth joint distinctly longer than either of the equal third or fourth; prothorax two-fifths wider than long, widest and prominent at the sides distinctly behind the middle; surface broadly impressed medially except apically; punctures granular and close-set; scutellum subquadrate, with rounded angles; elytra parallel, with nearly straight sides and broadly obtuse apex, a fifth or sixth wider than the prothorax, the costules strong but obtuse, alternating in width; intervals roughly and irregularly indented; punctures very fine, dense, the pubescence minute; anterior femora but feebly swollen. Length 10.3 mm.; width 3.5 mm. Utah (Stockton),—Spalding.

Resembles *pugetanum*, but smaller and with slightly larger head, more prominent eyes and rather less elongate antennæ, broader and more obtuse elytral costules and more abbreviated scutellum.

Asemum fulvipenne Csy., can be regarded as a subspecies of *atrum*—slightly larger and with more abbreviated antennæ.

Tetropium Kirby

The species of this genus, with more thorough exploration of the country, seems to be rather more numerous in North America than in Europe. The following is not closely related to any described species:

Tetropium hexagonum n. sp.—Slender, feebly convex, black throughout, the tarsi brown; lustre dull; head (♂) three-fourths as wide as the prothorax, somewhat shining, rather finely, deeply and loosely punctate, with a rather deep canaliculation not attaining the base; eyes well developed and rather convex; antennæ long and moderately slender, black throughout, two-thirds as long as the body, stouter basally, the fourth joint fully three times as long as wide, the fifth still longer; prothorax very nearly as long as wide, hexagonal, the sides not quite parallel in apical, converging in almost basal, half, nearly straight, with the angulation conspicuous, rounding slightly at apex, which is wider than the base, sinuate near the latter for a short distance, the surface feebly impressed medially, minutely and densely punctate throughout; scutellum quadrate, broadly rounded behind, densely punctulate; elytra twice as long as wide, parallel, with straight sides, obtuse and broadly, individually rounded at apex, about a fifth wider than the prothorax; surface minutely and very densely, evenly punctate, each with two distinct costules; legs moderate, the femora distinctly dilated, the second the least so. Length 9.7 mm.; width 2.75 mm. California (Humboldt Co.). A single specimen of unrecorded origin but probably from Nunenmacher.

This species may stand at the end of the series; it is wholly unrelated to any other known to me. The pubescence is blackish and very minute.

Tetropium boreale n. sp.—Size still smaller, narrow, parallel, moderately convex and dull in lustre, the pubescence black and very short; legs short, piceous-brown, with black femora, the anterior dilated in the type, which is probably male; head three-fourths as wide as the prothorax, finely and closely punctate, with

an anterior more impressed and more strongly and loosely punctate area; eyes prominent; antennæ very slender, two-thirds as long as the body, the basal joint thicker, rather shining, black, gradually piceous-brown distally, the fourth joint but little over twice as long as wide and very slightly shorter than the fifth; prothorax slightly wider than long, the sides parallel, broadly and obtusely prominent at about the middle, feebly arcuate thence to apex and base, the latter barely at all the narrower; surface convex, finely and closely but not very densely punctate, impressed rather narrowly along the middle, the bottom of the canal abruptly polished and impunctate; scutellum subquadrate, rounded behind, finely canaliculate; elytra slightly over twice as long as wide, about as wide as the prothorax, the sides parallel and straight, obtusely rounded at apex, with rounded sutural angles; punctures extremely minute and dense; each elytron with two feeble costules. Length 8.4 mm.; width 2.2 mm. Idaho (Priest Lake),—Prof. C. V. Piper. One specimen.

Also wholly distinct from any other known species; it may stand near the preceding in the list.

Opsimus Thoms.

The following subspecies is allied rather closely to *quadrilineatus* but differs in a number of slight characters:

Opsimus quadrilineatus Mann., subsp. **biplectralis** nov.—Elongate and subparallel, moderately convex, dark piceous-brown in color and dull in lustre, the pubescence very short, rather close and dark gray in color; head as long as wide, fully two-thirds as wide as the prothorax, very finely, closely punctured, with a very fine entire shining canaliculation; eyes distant from the base; antennæ with bristling pubescence, slender, nearly one-half longer than the body, the third joint four times as long as wide, the thicker first joint nearly three times as long as wide; prothorax two-fifths wider than long, constricted just behind the apical margin, the sides arcuately diverging thence to the oblique spine at two-fifths from the base and thence rapidly oblique to the somewhat prominent basal margin; surface rather convex, finely, densely punctulate, with a finely canaliculate shining median line; scutellum somewhat wider than long, parabolic; elytra fully twice as long as wide, individually rounded at tip, between a fourth and third wider than the prothorax, the sides straight and just visibly oblique; surface minutely, densely punctulate, the two costules rather fine; legs moderate, the femora only slightly swollen. Length (♂) 10.2 mm.; width 2.85 mm. California (Del Norte Co.), —Nunenmacher.

The male type differs from my male of *quadrilineatus*, from Corvallis, Oregon, in its larger size, longer second antennal joint, which is almost four times as long as wide, broader, deeper and more polished median thoracic sulcus, broader and more rounded scutellum, this being almost parallel in *quadrilineatus*, and in the less slender tarsi.

Criocephalus Muls.

The smaller species that I separated under the name *Nothorhina* are probably nothing more than *Criocephalus*, and the name should therefore disappear so far as our fauna is concerned. Of the

described species of *Criocephalus*, *lacustrinus* is founded on a slightly abnormal specimen of *agrestis*, and the species should therefore be suppressed; all other described species are, however, amply distinct, so far as shown by the material in my collection. The following five species are also evidently valid:

Criocephalus elongatus n. sp.—Very elongate, slightly shining, black, the legs with feeble piceous tinge; pubescence minute, blackish, the sternal hairs long, loose and gray; head three-fourths as wide as the prothorax, with large, prominent and shallowly emarginate eyes; surface finely but strongly, closely punctate, with a deeply impressed entire canaliculation; antennæ black, very slender, short (♀) and not over two-fifths as long as the body, distinctly longer (♂); fifth joint fully five times as long as wide (♀), rather more than six (♂) and more slender; prothorax only a fourth or fifth wider than long; sides obtusely subangulate behind the middle, becoming distinctly sinuate near the base, the briefly pedicellate base slightly narrower than the apex; surface with a few sharp granules behind the lateral prominences, finely, very closely punctate, with three depressions, the median and posterior much the feeblest; median line narrowly impressed and shining in rather more than basal half; scutellum ogival, densely punctulate and shallowly lucido-canaliculate; elytra nearly four times as long as wide, a fourth to fifth wider than the prothorax, the sides feebly oblique, rounded at apex, each with two distinct costæ; punctures moderate, very close and slightly scabrous; legs long and slender; anterior tarsi notably slender in both sexes. Length 20.0–24.0 mm.; width 5.3–6.2 mm. Utah (Stockton) and Oregon (Columbia River).

Differs from both *asperatus* and *productus* in its much shorter and still more slender antennæ; it is much narrower than the former and correspondingly wider than the latter.

Criocephalus propinquus n. sp.—Slender and parallel, rather dull in lustre, piceous, more rufous beneath; pubescence fine, short, decumbent and grayish, longer and more shaggy on the sterna; head fully three-fourths as wide as the prothorax, a little wider in the male, with large and notably prominent eyes; punctures fine and very dense; median sulcus fine, deeply impressed, somewhat uneven; antennæ slender, one-half (♀) or fully three-fourths (♂) as long as the body, the third joint about four (♀), or between five and six (♂), times as long as wide; prothorax only very little wider than long, the sides obtusely subangulate just behind the middle, not evidently sinuate at base; surface very finely and densely, deeply punctate, convex, with about three sharp granules at each side posteriad and a deep moderate lateral impression near the middle; median line broadly, deeply impressed from anterior third to basal fourth; scutellum very moderate, subparallel, ogival in about apical half, feebly impressed medially; elytra three and one-half times as long as wide, parallel, nearly a third wider than the prothorax, rapidly obtusely rounded at tip, each with two fine subentire costules; surface with moderately fine, close and somewhat rugulose punctuation; anterior tarsi (♂) rather slender, not obviously dilated. Length 17.0–19.3 mm.; width 4.2–4.8 mm. Colorado,—Levette.

Allied to *productus* but shorter, with relatively still smaller head and prothorax and more slender anterior tarsi in the male; *productus* is a common species in California and British Columbia, extending to Colorado.

Criocephalus coloradensis n. sp.—Parallel, moderately convex, dark brown in color, rather dull, with short dark gray pubescence, a little longer beneath; head well developed, four-fifths as wide as the prothorax, with rather large prominent eyes, finely but deeply, closely punctate, the median sulcus deeply impressed, rather fine, not quite attaining the base; antennæ (♀) scarcely more than half as long as the body, the first five joints rather thick, the remainder slender, the third joint between three and four times as long as wide; prothorax notably short and transverse, nearly one-half wider than long, the sides subparallel, evenly and rather strongly arcuate; base slightly narrower than the apex; surface finely, deeply and very closely punctate and with an oval, less closely punctate, impression near each side; median region feebly, unevenly impressed, not canaliculate; scutellum nearly as long as wide, feebly impressed along the middle; elytra between three and four times as long as wide, about a fourth wider than the prothorax, subparallel, very finely punctate, less finely, rather loosely toward base, each with two rather fine and feeble raised lines; legs slender, only moderately long. Length (♀) 14.0 mm.; width 3.7 mm. Colorado (Florissant),—Rohwer.

A very distinct species, not very closely allied to any other thus far described; it may be placed next after *gracilipes* in the list, but has a very differently impressed and much shorter prothorax.

Criocephalus uteanus n. sp.—Parallel, rather convex and somewhat shining, brownish-piceous in color, with short grayish pubescence, longer and more erect on the prothorax; head moderate, three-fourths as wide as the prothorax, with short but convex eyes, the surface densely and somewhat roughly punctate, the median channel strong but not extending much behind the eyes; antennæ (♀) short and rather thick, but little over a third as long as the body, the third and fourth joints only two and one-half times as long as wide, the fifth a little longer; prothorax barely visibly wider than long, the sides parallel and evenly arcuate; base but little narrower than the apex; surface strongly, closely and somewhat unevenly punctate, with numerous sharp asperities toward the sides, in more than median third broadly impressed except at apex and with a short elevation on the median line behind the middle; scutellum well developed, slightly wider than long, rounded behind and finely somewhat sparsely punctate, unimpressed; elytra three and one-half times as long as wide, with parallel straight sides and rapidly rounded apex, nearly a third wider than the prothorax, finely, loosely and feebly but subrugosely punctate, each with two feeble obtuse lines; legs moderately long and slender. Length (♀) 17.0 mm.; width 4.3 mm. Utah (Eureka),—Spalding.

Closely resembles *impressa* but narrower and with longer prothorax, but especially with very much shorter antennæ. The prothorax is slightly widest a little behind the middle.

Criocephalus champlainianus n. sp.—Form parallel, unusually abbreviated, evenly brown in color, moderately convex and slightly shining; pubescence pale grayish, short but coarse, decumbent, even and distinct; head fully three-fourths as wide as the prothorax, with well-developed prominent and deeply emarginate eyes; surface uneven, rather finely, densely and closely punctate, the median sulcus deep, subentire; antennæ a little more than half as long as the body, very thick, rapidly attenuate distally, the third joint only twice as long as wide; prothorax a third wider than long, the sides obtusely subangulate and prominent

just behind the middle; base and apex subequal; surface nearly even, evenly and loosely, rather finely punctate, not canaliculate but with a very moderate median impression near the base; scutellum small, rounded, finely, rather sparsely punctulate; elytra short, not quite two and one-half times as long as wide, a third wider than the prothorax, the sides subparallel; apex rapidly obtusely rounding; surface finely, evenly and rather closely punctulate, each with two very obtuse ridges, the interval between them broadly and obtusely prominent; legs moderate, the tarsi very slender. Length (♀) 13.0 mm.; width 3.7 mm. New York,—Prof. J. F. Kemp. A single specimen, taken near Lake George in the Lake Champlain region.

This species is wholly distinct from any other and may be placed at the end of the list.

Hylotrupes Serv.

It appears to me that there has been a great deal of misapprehension concerning species in this genus, which I find to be rather numerous and separated by such pronounced characters that it would seem to be unwarrantable to regard them simply as aberrational forms. This condition has arisen apparently in great part because most of our collected material is made up of series represented solely by one or two specimens, from widely separated localities, giving rise to the inference that the differences, though marked, are due to variation; there is also an evident inconsistency in coloration, normally black elytra often becoming pale luteous in tint.

Owing to this widespread opinion regarding specific invalidity, I have therefore simply indicated the various names as referring to new forms, without attempting to indicate, in the present state of incertitude, the exact taxonomic status of each, merely remarking that the various forms are notably distinct among themselves and in all probability not due to fortuitous variation. This can be seen especially in comparing the very fine thoracic sculpture of *latus* and the remarkably coarse punctures of *puncticollis*, also the long thoracic pedicel of *pedicellatus* and some other special differential characters. There are six apparently specific American forms in my collection as shown below:

Pronotum more or less finely and closely punctate, coarsely rugose or subpunctate near the sides 2

Pronotum in great part coarsely, deeply and conspicuously punctate, this being applicable apparently to both sexes as before. 5

2—Pronotal hairs fine, erect and dense in about lateral fourth, elsewhere notably sparse, inconspicuous and shorter. 3

Pronotal hairs sparsely and subevenly distributed and subdecumbent throughout; prothorax very briefly pedunculate at base. 4

3—Body broad, moderately convex, somewhat strongly shining, the pronotum less so, black, the legs slender, piceous, with clavate femora, especially in

the male; sexual differences slight as usual; head barely more than half as wide as the prothorax, with moderate, obtusely but deeply emarginate eyes, strongly, densely punctate, moderately sulcate before the eyes; antennæ slender, piceous, the third joint four, the second two and the third three, times as long as wide; outer joints but very little shorter in the female; prothorax transverse, strongly, subevenly rounded at the sides and widest at the middle, the basal angles slightly prominent; surface with a strong elongate polished tubercle at the middle and outer fourth; median line flat, broadly impunctate, less so apically; scutellum rounded, slightly impressed apically; elytra two and one-half times as long as wide, a little wider than the prothorax, more so in the male; sides somewhat obliquely rounding behind; surface coarsely, loosely and rugosely punctate, a more densely pubescent spot near the suture before, and another behind, the middle; two fine costules very feeble; anterior tarsi (♂) moderately thickened. Length (♂ ♀) 16.0–17.0 mm.; width 4.8–5.5 mm. Europe (Paskau, Moravia),—Reitter.....*bajulus Linn.

Body much smaller and narrower, black throughout or with pale luteus elytra, shining; vestiture and pubescent elytral spots somewhat as in *bajulus;* head relatively larger, four-sevenths as wide as the prothorax, coarsely and loosely punctate, often rufescent apically; median line moderately sulcate but not behind the line of the eyes, which are prominent and deeply emarginate; antennæ slender, blackish to paler, nearly as in the preceding in structure; prothorax narrower, two-thirds wider than long, the rounded sides becoming parallel for a short distance at base; surface with a strong polished tubercle at each side, shorter than in the preceding but similar in position; punctures less close-set; median line similarly impunctate; scutellum smaller and shorter, rounded, not impressed; elytra similar in length but with more oblique sides and as wide as the prothorax at base; punctures very coarse, deep, somewhat irregular and well separated, the two fine costules very feeble to obsolete. Length (♀) 12.5–13.5 mm.; width 3.8–4.3 mm. District of Columbia. Two specimens.....**inæqualis** nov.

4—Body notably broad, wider even than in *bajulus* and with still finer and closer thoracic sculpture, parallel, shining, the pronotum less so, piceous-black, the type with slightly castaneous tint; pubescence pale ochreous-yellow; head evidently more than half as wide as the prothorax; punctures strong, deep and well separated, the fine sulcus as usual; antennæ two-fifths as long as the body, slender, the joints proportioned nearly as in *bajulus;* prothorax not quite so short as in the latter, scarcely two-thirds wider than long, the rounded sides not quite so even, the disk slightly widest behind the middle; surface more finely and closely punctate, the polished median line narrower; strong tubercles nearly similar; scutellum larger and broader, rounded, finely, sparsely punctulate and feebly, medially impressed except basally; elytra but little over twice as long as wide, slightly though evidently wider than prothorax, strongly, unevenly and loosely punctato-rugose, the anterior of the two subsutural pubescent spots very dense and conspicuous, the posterior small and feebly developed; legs slender, the femora moderately clavate. Length (♀) 17.3 mm.; width 5.75 mm. Rhode Island
latus nov.

Body very much narrower, more elongate, moderately convex, red-brown, the elytra flavate in the type; anterior parts moderately, the elytra strongly, shining; head evidently more than half as wide as the prothorax, the anterior sulcus feeble, the eyes moderate; punctures strong, deep, slightly separated, the pubescence sparse; antennæ very slender, rufous, scarcely two-fifths as long as the body, the third joint five, the fourth more than two and the third more than three, times as long as wide; prothorax narrower, three-

fifths wider than long, the sides much less rounded than in the preceding, diverging and nearly straight from apex to posterior third, there prominently rounded, thence rapidly converging to the short deep basal sinus; base just visibly narrower than the apex; surface with the punctures small and well separated, the smooth flat median line wide; tubercles nearly as in *bajulus* and the preceding; vestiture long, coarse and sparse throughout; scutellum small, slightly transverse, rounded; elytra not quite three times as long as wide, nearly a fourth wider than the prothorax, the sides subparallel, gradually rounding behind; punctures sparse, very coarse, deep, uneven as usual; subsutural denser spots small and feebly developed; the two fine costules are wholly obsolete; legs rather short, of the usual structure. Length (♀) 16.0 mm.; width 4.7 mm. A single specimen, probably taken by Levette in Indiana..... **nematocerus** nov.

5—Base of the prothorax only very briefly prolonged.....6

Base prolonged for a notable distance, forming a broad pedicel.....7

6—Form broad, with unusually oblique sides of the elytra, black, shining, the pubescence gray, erect and bristling, sparse and uniform, remarkably coarse on the pronotum; head four-sevenths as wide as the prothorax, rufescent between the antennæ, deeply, loosely punctate; antennæ longer than usual, obscure rufous, rather more than half as long as the body, the joints proportioned as usual; prothorax three-fifths wider than long, rounded at the sides, the latter rather straighter and oblique basally; surface flatter than in the preceding species, very coarsely, deeply and irregularly punctate; small areas near the middle with finer dense punctures, the wide smooth median line uneven, the two discal tubercles as usual; scutellum moderate, rounded, coarsely pubescent; elytra slightly over twice as long as wide, at base sensibly wider than the prothorax; surface very coarsely, loosely punctate, gradually densely and much less coarsely so posteriad and rugose; anterior pubescent subsutural spot at basal third, the second a little behind the middle; costules wholly obsolete; legs well developed, with strongly and abruptly clavate femora. Length (♀) 15.8 mm.; width 5.0 mm. Maryland (Point Lookout)..... **puncticollis** nov.

Form much narrower and smaller in size, dark brown; pubescence very sparse, short, a little longer but inconspicuous on the pronotum; head three-fifths as wide as the prothorax, with very short prominent eyes, the punctures very deep, well separated and unequal in size; antennæ red-brown, barely half as long as the body, the fifth joint scarcely more than a fourth longer than the fourth, the surface of the joints minutely and densely punctulate, much more finely so than in the preceding; prothorax only about one-half wider than long, slightly widest near basal third, the sides rounded; base distinctly narrower than the apex; punctuation nearly as in the preceding, the surface more convex and the tubercles smaller; small patches medially more strongly and loosely punctate; median line similar; scutellum unusually small, rounded; elytra narrow, barely wider than the prothorax, more than twice as long as wide, sides gradually arcuate behind about the middle, one of the costules feeble and obtuse though visible; punctures moderate and sparse, becoming larger, dense, uneven and rugose behind about the middle; legs moderate, brown, the femora strongly clavate. Length (♂) 11.3 mm.; width 3.3 mm. New Jersey..... **incertus** nov.

7—Body parallel, the elytral sides but just visibly oblique, black, shining, the tibiæ and tarsi rufous; pubescence gray, very short and remote on the elytra, long, shaggy and uniform but sparse on the pronotum, long and rather close on the head, which is barely more than half as wide as the prothorax, the punctures moderate and somewhat close, sparse basally; eyes moderate; antennæ piceo-rufous, four-sevenths as long as the body,

the third joint nearly twice as long as the fourth, which is three-fourths as long as the fifth, its surface minutely and sparsely punctate, that of the outer joints densely micro-pubescent as usual; prothorax rather more than one-half wider than long, the sides parallel and very evenly rounded to the basal sinus; base but little narrower than the apex; surface convex, with very coarse, deep and rather close-set punctures, which are less evident in a limited central region, the median line as usual; tubercles a little before the middle and not so large as in most of the preceding forms: scutellum moderate, with sparse silvery hairs; elytra between two and three times as long as wide, about a fifth wider than the prothorax, the surface rugulosely uneven but polished, the punctures coarse and sparse, smaller and closer but not dense behind, the subsutural pubescent spots small; femora strongly clavate. Length (♂) 15.3 mm.; width 4.6 mm. Virginia (Norfolk).

pedicellatus nov.

Although having remarkably clavate femora and some other characters usually associable with the male, the type of *puncticollis* may be a female, as there are two small anal styles protruding behind the terminal segment, the latter extruded as generally in the female.

This genus, so far as the North American representatives are concerned, is confined narrowly to the Atlantic regions, whereas the related *Hemicallidium* and *Anocomis* are far more abundantly developed in the Pacific regions, the very few eastern forms being peculiar and isolated. There is but little sexual difference in the antennæ in these three genera.*

* Received many years ago with other material from an unrecorded European source, there is one example which, beyond any doubt at all, represents a distinct species. As I am unable to find this in any catalogue, unless possibly it may be *kosiorowiczi* Desb., of which I have no description at hand, I give below a short description of it sufficient for identification:

Hylotrupes minutus n. sp.—Very small, narrow and parallel, feebly convex and brown in color, notably shining; pubescence yellowish, short and very sparse on the elytra, long and sparse on the pronotum; head small, only three-fifths as wide as the prothorax, rounded, strongly and closely punctate, with fine and striiform median line; eyes normal; antennæ very slender, nearly three-fifths as long as the body, the joints proportioned nearly as in *bajulus;* prothorax very different, not quite one-half wider than long, the parallel sides evenly arcuate; basal margin slightly prominent at the sides, about as wide as the apex; surface flat above, with some feeble indentations and minute scattered punctures, declivous and with moderate but deep, widely scattered punctures at the sides, the inner limit of the slope being feebly elevated in basal two-thirds; scutellum small, parabolic; elytra parallel, with nearly straight sides, twice as long as wide and just visibly wider than the prothorax; surface very coarsely, unevenly punctato-rugose, the subsutural denser spots very small; legs unusually short. Length (♀) 8.0 mm.; width 2.3 mm. From some locality in Central Europe. One specimen.

Easily distinguishable by the very small size, absence of the usual two pronotal protuberances, short legs, general pronotal structure and sculpture and other features.

Anocomis Csy.

The remarks introducing the preceding genus apply also to *Anocomis*, the species and subspecies of which are rather numerous and widely dispersed in the colder parts of North America. The name of the genus is derived from the Indian word "Nocomis" with the Greek privative and is misspelled in the Leng list. Neither this nor *Hemicallidium* is closely related to *Sympiezocera* or *Semanotus*, as recently advocated, the antennæ in both the European genera having joints 3–5 of equal length, while in our two genera the fifth joint is much longer than the third or fourth. There are also many other differences, some of which refer to pubescence or to the general scheme of ornamentation.

The five following forms may perhaps be considered as subspecies of *ampla* and its closely related analogue *angusta:*

Anocomis conformis nov.—Shining, except on the dense parts of the pronotum, black, the elytra rufous, with slightly less than apical third and a large oval discal spot just before the middle deep black; pubescence very short, stiff and black on the elytra, long, erect, pale and hispid on the prothorax and head, the latter fully two-thirds as wide as the prothorax, with rather small short eyes as usual, the punctures moderate and dense; antennæ rather thick, one-half (♀) to two-thirds (♂) as long as the body, black, of the usual structure; prothorax two-fifths to half wider than long, the sides rather prominently rounded just beyond the middle; surface strongly and extremely densely punctate, with five polished spots, the central elongate; elytra two and one-half times as long as wide, with parallel, nearly straight sides, not quite one-half wider than the prothorax, coarsely, somewhat closely punctate, the black areas more finely and densely so; legs moderate, rather thick, the femora feebly clavate in both sexes. Length (♂) 8.4–11.0, (♀) 13.6 mm.; width (♂) 2.4–3.5, (♀) 4.2 mm. Utah (Vineyard),—Spalding.

Among the seven specimens that I have studied I can find no decided variation of any kind, and the fact that there is a structural modification of the elytral surface corresponding with the black or rufous coloration, would seem to betoken a greater structural significance in type of coloration than is usual in some at least of the ornamented forms of the order. Near the base of each elytron there are occasionally two feebly clouded areas, not sufficient however to be classed as maculation.

Anocomis arizonæ nov.—Form, maculation and general structure as in the preceding, the eyes a little larger and more prominent, the antennæ shorter, with joints 3–5 similarly increasing gradually in length, the prothorax slightly wider, with the polished areas rather more strongly embossed and the elytra not quite so elongate, though similarly ornamented. Length (♀) 12.0 mm.; width 3.75 mm. Arizona (probably southern). One specimen.

The chief difference between this and *conformis* resides in the fact that on each elytron of *arizonæ* there are fine and feeble though

evident costules, while in *conformis* there is no trace of these costules. The terminal coriaceous female sexual sheath in this form is notably narrower than in *conformis*, where the male seems to be much more abundant than the female.

In the three following the elytral punctures are not so reduced in size in the discal black spot.

Anocomis obliviosa nov.—Black, rather shining, the legs rufous, with piceous femora; vestiture sparse, long and bristling anteriorly, very short and darker on the elytra, excepting the usual coarse erect hairs near the scutellum; head moderate, broadest at base, strongly and closely punctate; antennæ pale, unusually short and stout, the third joint scarcely twice as long as wide, the second one-half longer than wide; prothorax two-fifths wider than long, the sides prominently rounded just beyond the middle; surface nearly as in the preceding; elytra rufous, maculate as in the two preceding, parallel, scarcely one-half wider than the prothorax, very little over twice as long as wide. Length (♀) 11.0 mm.; width 3.6 mm. A single example, the locality unrecorded but probably from the middle coast regions of California.

This form is closely allied to the two preceding, but differs in its distinctly shorter antennæ.

Anocomis terracensis nov.—Not quite so broad, shining, black, the legs rufous, with black femora, the elytra colored as in the three preceding, except that the subcentral black spot on each elytron is smaller; vestiture similar; head with more prominent eyes and narrower occiput; antennæ three-fourths (♂) or a little over half (♀) as long as the body, the third joint a little over twice (♀), or not quite three times (♂), as long as wide; prothorax a third (♂) to two-fifths (♀) wider than long, the sides angulate at the middle, thence sinuously oblique to the base; surface with an elongate polished embossed line in basal two-thirds at each side and a wider shining median area toward base; punctures coarse, deep and dense but not confused; scutellum small, shining, black; elytra distinctly wider than the prothorax, slightly less (♂) to distinctly more (♀) than twice as long as wide, coarsely, loosely punctured throughout; anterior male tarsi moderately thickened. Length (♂ ♀) 9.3–10.8 mm.; width 3.5–3.6 mm. British Columbia (Terrace),—Mrs. W. W. Hippisley.

In the single female at hand, the black elytral areas are so faded out as to be barely traceable. This is a rather distinct form in several ways and notably in thoracic outline and sculpture.

Anocomis basalis nov.—Smaller and narrower than any of the preceding, black, the legs piceous, with black femora; elytra rufous, deep and abruptly black in basal fifth, apical third and in a large and obliquely oval submedian discal spot on each; vestiture as usual; head moderate, the eyes not prominent; antennæ (♂) very nearly as long as the body, rather thick, gradually tapering, piceous-brown in color, the third and fourth joints between two and three times as long as wide; prothorax very nearly as in *terracensis*, except that the two lateral elongate polished areas are divided as usual; scutellum small, rounded; elytra scarcely twice as long as wide, parallel, much wider than the prothorax, coarsely and loosely punctate, the punctures of the black areas a little smaller and closer; anterior tarsi moderately thickened. Length (♂) 8.7 mm.; width 2.75 mm. British Columbia (Terrace),—Hippisley.

Differs in its small size and in the densely and abruptly black base of the elytra.

The following is a valid species of this genus and should be so recorded:

Anocomis canadensis n. sp.—Moderately stout, small in size, slightly shining, piceous throughout, without elytral maculation of any kind; pubescence abundant, gray, only a little shorter on the elytra, very long and hispid anteriorly and on the legs; head about two-thirds as wide as the prothorax, densely punctured; antennæ (♂) piceous-brown, almost as long as the body, the fourth joint almost four times as long as wide, the third a little shorter, fifth distinctly longer; prothorax convex, two-fifths wider than long, widest at the middle, where the sides are angulate, thence rounding to apex and sinuately oblique to base; surface densely punctate, with the usual five shining glabrous spots; scutellum small, rounded, less punctate; elytra but little more than twice as long as wide, scarcely a third wider than the prothorax, the sides straight and somewhat oblique from base to the broadly rounded apex; surface strongly, closely and evenly punctate throughout, the coarse grayish hairs forming a feeble though broad and evident fascia near apical third, which would be the position of the posterior red area of normal species; femora moderately dilated; posterior tarsi notably thickened. Length (♂) 8.5 mm.; width 2.65 mm. Canada (Ottawa).

Of this genus there are at least five distinct species, viz., *lignea* Fab., with subspecies *parvicollis* of the Atlantic regions, extending to Colorado and Texas, *ampla* Csy., with subspecies *angusta*, *conformis*, *arizonæ*, *obliviosa*, *terracensis* and *basalis* Csy., of the Pacific regions, *litigiosa* Csy., of the Pacific, and *terminata* Csy. and *canadensis* Csy., of the Atlantic fauna. The locality of *nicolas* White, is not known; it is of peculiar maculation as shown by the description, which I transcribed in a previous work and, if it should prove to be from the Atlantic regions, it is possible that *terminata* may be a subspecies of it.

Physocnemum Hald.

The species *brevilineum* of Say, seems to be well represented in my collection by a series collected by Mr. Frost at Paris and Monmouth in Maine; it was described from Pennsylvania, and these Maine specimens answer every published character. It has two short lateral embossed ivory lines medially, at the outer sides of the elytra, and a short one which is discal and more anterior; it is peculiar in having the distal femoral enlargement but very slightly feebler in the female than in the male. In the allied *compressipes*, which was founded upon the female and which occurs on the south shore of Lake Superior at Ashland and Marquette, the femoral enlargement in the female is very moderate and from an upper viewpoint is decidedly narrow, while in the male it is strikingly thick and, in this sex, besides, the long stipes or pedicel

of the femur is translucently rufous. The following is a small species, related to the two just mentioned but differing notably in coloration:

Physocnemum pictum n. sp.—Subparallel, black, the elytra black, with feeble metallic lustre behind, each with two short ivory lines in a pale space at the middle in outer half, a shorter such line but discal and more anterior and the suture is broadly pale from the scutellum to about the middle and inclosing a slender ivory line in its posterior half; head broader at base than across the eyes; antennæ (♂) very slender, filiform, extending slightly behind the body; abdomen rufous; legs moderate in length, the posterior femora very strongly dilated in less than apical half, the stipes concolorous and black. Length (♂) 10.5 mm.; width 2.8 mm. Dakota.

The prothorax and general sculpture is virtually as in *brevilineum*, but the coloration is quite distinctive and the stipes of the hind male femora longer.

The much larger *densum* resembles *brevilineum* in general structure, coloration and sculpture, but the prothorax is relatively larger and the distal punctures of the elytra are finer and closer than in any other species; the sutural part of the elytra is slightly paler, somewhat as in *pictum*, but here the supplementary fine discal ivory line, inside of the outer two, is longer, sharper and more obvious than in any other. The two following are also much larger and stouter than any of the preceding species except *densum:*

Physocnemum longitarse n. sp.—Coloration and sculpture as in *brevilineum;* head similar, the antennæ (♂) about as long as the body; prothorax a little shorter than wide, the outer discal tubercle behind the middle strong, bordered within by a rather more conspicuous depressed polished smooth area than in *brevilineum;* elytra but little wider than the prothorax, fully two and one-half times as long as wide and with notably oblique straight sides, the sculpture and ornamentation nearly similar; legs longer, the hind femoral enlargement very broad, compressed, the first joint of the hind tarsi unusually long, almost as long as the rest of the tarsus. Length (♂) 15.0 mm.; width 4.2 mm. Nebraska.

Readily recognizable by the unusually long tibiæ and tarsi of the hind legs in the male, as well as the broad subcompressed femoral enlargement.

Physocnemum angulatum n. sp.—Body slightly shorter and broader, coloration and ornamentation similar; antennæ (♂) filiform but rather thick, not quite as long as the body; prothorax large, distinctly shorter than wide, the sides just behind the middle more prominent and obtusely subangulate; lateral discal tubercle similarly strong, the internal smooth area well developed; elytra with the sutural pale area of *pictum* feebly evident as in the preceding, shorter and broader than in *longitarse*, relatively much wider than the prothorax and but little over twice as long as wide; sides more parallel; femora similar; first hind tarsal joint much shorter, but little longer than the second and third combined. Length (♂) 14.7 mm.; width 4.35 mm. Michigan (Marquette). One specimen.

Distinguishable from the preceding by the thicker antennæ,

relatively smaller prothorax and shorter and more parallel elytra, also by the more transverse and laterally more angulate prothorax.

Phymatodes Muls.

The following species is allied to *dimidiatus* but is much smaller and narrower and occurs near the Atlantic seaboard, while Kirby's species is distributed from Alaska to the Colorado Rocky Mountain region:

Phymatodes frosti n. sp.—Rather narrow, parallel, the male a little broader than the female and with more strongly though not extremely swollen femora, blackish-piceous, the anterior three-sevenths of the elytra abruptly pale tawny yellow, the under surface and legs very pallid; vestiture not dense and composed of minute hairs, which become dense and silvery on the scutellum; head nearly four-fifths as wide as the prothorax; antennæ slender and filiform, very nearly as long as the body in both sexes, pale in color, the first joint abruptly piceous-black; prothorax very nearly as long as wide, slightly widest and feebly prominent at the sides just behind the middle, the sides thence feebly oblique and somewhat deeply, medially sinuate to the apex, a little more oblique and straighter to the base; surface finely, rather roughly and closely punctate, with a narrow smooth median line; scutellum quadrate, rounded behind, feebly concave; elytra parallel, distinctly wider than the prothorax and somewhat more than twice as long as wide; surface very finely, not densely punctate, a broad median band opaque, shining in nearly apical third; legs moderate, the tarsi very slender and filiform, the anterior thicker. Length (♂ ♀) 6.0 mm.; width 1.5–1.75 mm. Maine (Monmouth),—C. A. Frost.

Differs from *dimidiatus* not only as stated above, but especially by the sharp and abrupt line of demarcation between the darker and paler parts of the elytral surface, also by the shorter antennæ, with blackish and not pale basal joint and by the deeper sinus in the sides of the prothorax beyond the widest section.

Phymatodes collaris n. sp.—Rather stout, convex, polished, feebly pubescent, black, the prothorax laterally and basally and the elytra basally and narrowly along the suture, rufescent; legs bright rufous; head scarcely three-fifths as wide as the prothorax, minutely and remotely punctulate; antennæ filiform, moderately slender, pale rufous, the joints beyond the second not differing much in length; prothorax subglobular, only very little wider than long, the sides strongly and evenly arcuate, parallel for a very short distance at base along the prominent basal margin; surface with sparse, moderately long, stiff and pale hairs, finely, very sparsely punctate; scutellum flat, piceous, rounded and punctulate; elytra but little wider than the prothorax, nearly two and one-half times as long as wide, subparallel, gradually rounded behind, convex, finely, sparsely punctate, with moderate and subdecumbent pale hairs, each with a sharp yellow transverse fascia in outer two-thirds between basal fourth and third and another, very oblique and not quite attaining the suture, at about apical third; legs rather short. Length (♀) 8.0 mm.; width 2.35 mm. California (Humboldt Co.).

In the female type the antennæ are fully three-fourths as long as the body. This is a species of the subgenus *Phymatodina*, but

differs very much from any described species in its larger size and very much stouter form; the antennæ are much longer and thicker than in my single female of the typical *nitidus* Lec. The dimensions of this specimen of *nitidus* are 4.75 by 1.2 mm.

Aneflus Lec.

Of *Aneflus levettei* I have recently obtained a perfect specimen, taken in Cochise Co., Arizona; in this the antennæ are slender and filiform, with joints 5–11 carinate—feebly to strongly in succession—and also becoming more and more flattened, the eleventh joint with but the faintest indication of subapical modification; the joints are attached in rigorously axial line, the second and third with very minute terminal spine. The vittate arrangement of the elytral vestiture is of structural importance, as the glabrous intervals are slightly convex and each with a widely spaced series of coarser punctures.

The following is a very much larger species, with purely 12-jointed antennæ, previously alluded to by Mr. Schaeffer (Sci. Bull. Br. Inst., I, p. 335), where comparison was made with *Axestinus* and apparently with the idea that it is simply a larger development of *levettei:*

Aneflus sonoranus n. sp.—Elongate but much less slender than *levettei*, testaceous, the head and pronotum shaded slightly darker; integuments shining, with coarse and more or less dense, decumbent ashy hairs, each elytron with three narrow and almost flat glabrous lines, bearing series of coarse punctures, close-set basally; head fully three-fourths as wide as the prothorax, with large and very coarsely faceted eyes, the front between the antennæ with fine canaliculation and sloping rapidly to apex, the transverse impressed line very feeble; palpi small, the last joint narrowly obtriangular, with squarely truncate apex; antennæ (♂) fully four-fifths as long as the body, rufous, finely and very densely pubescent, the hairs ashy, sparser on the first joint; joints 3–4 with very fine feeble carina, this on succeeding joints gradually very strong, the joints gradually becoming very flat, attached somewhat eccentrically, so that the inner angle at apex is slightly prominent, 3–5 or 6 with small outer terminal spine, clearly 12-jointed, the last joint half as long as the eleventh but much narrower and perfectly free; prothorax fully a fifth longer than wide, gradually narrowed to apex, which is three-fourths as wide as the base; sides broadly arcuate, not at all angulate; surface evenly convex throughout, moderately and loosely punctate, the punctures in great part concealed by the vestiture, with small elongate glabrous central spot; scutellum rounded, coarsely and closely pubescent; elytra more than three times as long as wide, widest at base, with feebly oblique sides and sharply bispinose apices, not quite one-half wider than the prothorax; punctures deep, moderately separated, becoming gradually very coarse basally, in general almost concealed by the decumbent vestiture; legs long and slender, the femora slender, not armed at tip, the first joint of the hind tarsi a little longer than the two following; abdominal segments gradually a little shorter, the first much longer; metasternal episterna narrow, without trace of sensitive pore, the inner margin slightly oblique. Length (♂) 25.0 mm.; width 5.6 mm. Arizona (Baboquivari Mts.),—E. G. Smyth.

In comparing this species with *Axestinus obscurus* Lec., there are many points to be considered. In that species the coloration seems to be much more obscure and the vestiture probably not so coarse, dense or uneven, as no mention is made of its vittate arrangement on the elytra. As mentioned by Mr. Schaeffer, for Dr. LeConte to have overlooked the strong carina on each antennal joint is inconceivable. It is stated that the lower lobe of the eye extends in front of the antennæ in *obscurus;* here it is only at the side of the antennal tubercle. The twelfth antennal joint seems to be narrower here than in *obscurus*, where also the pronotum is said to be biimpressed anteriorly and of which there is no trace in the present species. The metasternal episterna in *obscurus* are said to have a small scent-pore near the coxæ, there is no trace of it here. The fifth ventral segment is said to be broadly emarginate in the presumably male type of *obscurus;* here it is just perceptibly sinuate for a small space at the apex. So there would seem to be no question of the validity of the present species, but circumstances seem to show that it may be congeneric with *obscurus*. *Levettei* should be referred to *Aneflus* and not to *Aneflomorpha*.

Aneflomorpha Csy.

The species of this genus are on the whole much smaller than those of *Aneflus*, less pubescent and they are generally testaceous in color. The antennæ are more slender, filiform, not flattened and carinate as they are in that genus, but the eleventh joint exhibits signs of division to form a short terminal twelfth joint, which is never free however. There are several species in my collection, besides those already known; they may be described as follows:

Aneflomorpha parowana n. sp.—Very slender, convex, testaceous, rather shining, the anterior parts less so because of density of sculpture; pubescence ashy, rather short, sparse and uniform; head a little wider than the prothorax, the coarsely faceted crescentiform eyes rather prominent; antennæ very slender, fully as long as the body, somewhat shorter in the female, very finely sculptured and pubescent, with some long erect setæ beneath; prothorax very slightly elongate, parallel, the sides feebly subprominent just behind the middle; surface even, the punctures coarse and dense; scutellum semicircular, finely and densely pubescent; elytra at base about a third wider than the prothorax, between four and five times as long, the sides subparallel, slightly diverging basally, the apices each with a very shallow sinus, limited at each side by very small, feeble and equal angulations; punctures well separated, moderate, gradually a little coarser basally; legs very slender; hind tarsi with the basal joint as long as the next two. Length (♂ ♀) 12.0–12.5 mm.; width 2.0–2.45 mm. Utah (Parowan Mts.),—Spalding. Two specimens.

This species, when compared with *linearis* Lec., which is a close relative from San Diego, Cal., is seen to be a little larger, less pallid in color, with larger eyes, more deeply and densely punctured pronotum and slightly longer hairs of the elytra.

Aneflomorpha testacea n. sp.—Form slightly less elongate than in the preceding, broader than *linearis*, testaceous, rather paler than the preceding, the lustre and sculpture subsimilar, the sparse vestiture a little shorter; head nearly similar but with the eyes more widely separated in the male; prothorax nearly similar but less elongate, the coarse deep and very dense punctures not quite so large; elytra nearly similar but not quite so elongate and with the stiff sparse hairs shorter; apical sinus differing in having a much longer acute tooth at the suture than externally; legs similar. Length (♂ ♀) 12.0–12.5 mm.; width 2.2–2.4 mm. Utah (Eureka),—Spalding. Three specimens.

The very slender antennæ are nearly as in *parowana*, the terminal spine of the third and fourth joints a little longer.

Aneflomorpha rectilinea n. sp.—Narrower and a little smaller than either of the preceding species, throughout not very shining, the gray stiff hairs sparse, subdecumbent and uniform; head but little wider than the middle of the prothorax, densely punctate, the eyes as usual; antennæ piceous, very slender, distinctly longer than the body in the male, the fine subcariniform line of joints 2–5 evident; terminal spines of joints 3–4 moderate, that of the fifth very small, though evident; apical segment of the eleventh joint scarcely at all indicated; prothorax distinctly elongate, subparallel, the sides subprominently arcuate behind the middle; apex slightly narrower than the base; surface evenly convex; punctures only moderately coarse, deep, even and almost in mutual contact; scutellum moderate, arcuately triangular and dull; elytra at base only a fourth or fifth wider than the prothorax, parallel, between four and five times as long as wide, the rounding apices each feebly sinuate, the outer angle rather more prominent than the inner; punctures moderately coarse, close-set and somewhat rugose, gradually only a little coarser basally; legs very slender. Length (♂) 11.75 mm.; width 2.0 mm. Arizona (Tucson),—Oslar. Two specimens.

At first this species seemed to be the same as *Elaphidion tenue* Lec., but the statement (New Species, p. 186) that the spine of the third antennal joint is two-thirds as long as the fourth joint, will not accord at all, as, in the present species, this spine is less than half as long as the fourth joint.

Aneflomorpha gilana n. sp.—Stouter than any of the preceding and much more pubescent, the hairs cinereous and very stiff, subdecumbent and close-set, uniform throughout; integuments, legs and antennæ testaceous, the elytra feebly shining; head scarcely wider than the prothorax, the eyes above more widely separated than usual, deeply emarginate, coarsely faceted; antennæ (♂) slender, slightly longer than the body, the fine carina evident on joints 3–6, the surface of the joints finely, not densely punctulate, the inferior fringe of setæ distinct but very loose; prothorax scarcely visibly longer than wide, the sides parallel, feebly arcuate, sinuately converging in basal three-sevenths; surface even and convex, coarsely, deeply and densely punctate, the coarse hairs close but not dense; scutellum semicircular, densely pubescent; elytra at base scarcely a third wider than the prothorax, more than four times as long as wide, the sides straight,

unusually oblique from base to apex, the apices each with a feeble sinus defined by minute but sharp and equal angles; legs moderately slender; fifth ventral broadly truncate as usual in the male. Length (♂) 15.0 mm.; width 3.0 mm. Arizona (Phoenix). One specimen.

There is no other species of the genus which at all closely resembles this, so far as I have been able to observe, the general outline and the conspicuous coarse hairs being quite unique.

Hypermallus Lec.

In this genus the forms which I described under the names *flumineus* and *externus* can be considered subspecies of *incertus* Newm., the former being broader and with wider head, the latter more slender and with markedly shorter prothorax; *compactus* and *brevicornis* are both distinct species, and the following is another:

Hypermallus obsolescens n. sp.—Parallel and convex, not very slender, very moderately shining, obscure testaceous, the elytra piceous-black; vestiture rather short and sparse, pale, with numerous loose condensations on the pronotum and elytra; under surface and legs dark rufous, sparsely pubescent; head narrower than the prothorax, rather closely pubescent, the eyes well separated; antennæ three-fourths as long as the body, somewhat thick, rufo-piceous, the spines of joints 3–5 very moderate, decreasing; third joint only two and one-half times as long as wide; prothorax fully a fourth wider than long, the sides parallel and subevenly arcuate, the apical and basal margins strongly beaded; surface with broad and smooth, slightly convex median line, punctured apically, also with some rather small distintegrated shining calluses on the disk, elsewhere very moderately, sparsely and obscurely punctate; elytra barely three times as long as wide, a fourth or fifth wider than the prothorax, the rounded apices each with a shallow sinus, the sutural prominences small, the outer conspicuously long and feebly curved; punctures coarse and well separated, less coarse apically; legs very moderate in length. Length (♀) 11.7 mm.; width 3.2 mm. Pennsylvania (Harrisburg).

Allied to *incertus* but much smaller and with very much shorter antennæ, shorter prothorax, which is more feebly and indistinctly sculptured and with the elytral punctures relatively less diminishing posteriorly; the legs are much shorter.

Anoplium Hald.

The species of this genus are very numerous, many having been recently discovered in the Arizonian fauna. Of *spurcum* Lec., I have three specimens from Texas; the body is mottled with cinereous condensations of the vestiture, the prothorax very little longer than wide, coarsely punctate, with a smooth entire median line in the male, but in the female the entire surface is punctured less coarsely than in the male and with the general surface minutely and very densely punctulate besides.

The following is by far the largest known species but seems to be undescribed:

Anoplium huachucæ n. sp.—Subparallel, unusually broad and moderately convex, distinctly shining and rufo-piceous throughout, uniform in color; pubescence short, stiff, yellowish, uniform and rather sparse, longer on the head and prothorax but sparse; head two-thirds as wide as the prothorax, the large crescentic and prominent eyes very coarsely faceted and well separated; antennæ (♀) rather short, thick, finely pubescent, with the spines of joints 3–5 very small and decreasing as usual, the third joint obconic and not quite twice as long as wide; prothorax between a third and fourth wider than long, broadly constricted at base, the sides subparallel and rather unevenly arcuate; apex slightly narrower than the base, with fine strong bead; surface with a wide smooth convex area, extending slightly beyond the middle and sparsely punctulate toward base, also with a large lateral discal smooth callus beyond the middle and some that are small and irregular, more posteriad, elsewhere very coarsely, subconfluently and deeply punctate, more finely toward apex; scutellum subsemicircular, with moderately close decumbent coarse hairs; elytra parallel, feebly swollen at the humeri and less than two and one-half times as long as wide, a third wider than the prothorax, the apex broadly, conjointly and subevenly arcuate, the suture with a very minute spine; punctures strong and sparse, finer apically; each has about two narrow inconspicuous smooth lines; legs moderate, rather thick, the tarsi normal. Length (♀) 23.0 mm.; width 6.8 mm. Arizona (Huachuca Mts.),—Oslar.

There is nothing else in the genus which could be considered as allied to this, but possibly it may have been described and assigned to some other genus; it however seems truly to be an *Anoplium*.

Anoplium subtropicum n. sp.—Parallel, convex, not very slender, piceous, dull in lustre, the elytra more shining and rufescent; pubescence gray, short, close-set, with some feeble irregular condensations, also with a few erect coarse hairs, especially on the pronotum; head distinctly narrower than the prothorax, the eyes well developed, surrounding the antennal base except internally as usual; sculpture rugose; antennæ a little longer than the body (♂), somewhat shorter than the body (♀), conspicuously pubescent and with a long loose inferior fringe; joints 3–7 with a minute apical spine; third about four times as long as wide, slightly shorter (♀); prothorax as long as wide or somewhat longer, parallel, with moderately arcuate sides briefly more oblique at apex and base; surface even; punctures moderately coarse, deep, dense throughout; apical margin only very finely beaded; scutellum transverse, rounded; elytra parallel, gradually rounded behind, the apex conjointly evenly rounded, the suture not spinose, only a little though evidently wider than the prothorax, pale red-brown, each with a broad, black and more shining sublateral vitta to apical fourth, widely interrupted at the middle; punctures coarse, deep and loose, becoming fine apically; legs rather short. Length (♂♀) 10.7–11.6 mm.; width 2.7 mm. Florida (Key West).

There is no species at present known to me that can be considered allied to *subtropicum* and I do not think it can be the same as the West Indian *nanum* Fabr. (*cinereum* Oliv.) or the Mexican *grisescens* Bates. The vittate ornamentation of the elytra is a very peculiar feature.

Anoplium politum n. sp.—Parallel, rather wide and feebly convex, very shining throughout and bright rufous; pubescence pale, stiff, very short, loose and even; head wide though evidently narrower than the prothorax, the eyes large and prominent, formed as usual and well separated; front shining, sparsely and unevenly, rather coarsely punctured; antennæ short and thick, scarcely three-fifths as long as the body, the third joint four-fifths, the fourth less than one-half, longer than wide, both rapidly obconic; spines of the third and fourth joints small, the fifth joint spineless; prothorax subglobular, slightly wider than long, the subparallel sides broadly and somewhat unevenly arcuate, the apex slightly narrower than the base, with convex smooth surfaces, one, oval, on the median line and two discal at each side, the posterior of which is feebly developed and punctate; remainder of the surface coarsely, very closely and unevenly punctate, shining; scutellum one-half wider than long, impressed along the middle, obtusely ogival and almost glabrous; elytra nearly a third wider than the prothorax, parallel, with rapidly evenly rounded apex, scarcely over three times as long as wide, the sutural angles very minutely spiculate; punctures sparse, deep, rather coarse basally, very fine apically; legs moderate. Length (♀) 13.0 mm.; width 3.6 mm. Arizona (Baboquivari Mts.),—Snow.

May be related to some Mexican species unknown to me, but very different from anything hitherto known from north of the Mexican boundary.

Anoplium quadricolle n. sp.—Longer, parallel, moderately convex, dull in lustre and piceous-black, barely paler beneath; pubescence very short, stiff, tawny in color, close but not notably obscuring the sculpture, without erect hairs even on the prothorax, where the pubescence is very even, having some condensational irregularity on the elytra; head large, as wide as the prothorax, the eyes well developed and very coarsely faceted; front moderately, unevenly, punctate and more shining; antennæ (♂) barely as long as the body, gradually notably thicker basally, piceous, finely, loosely pubescent, the inferior fringe very short; distal joints slightly serrate, 3–5 not spinose but very acutely angulate at apex; fourth joint a little over twice as long as wide, the eleventh slightly reduced in diameter in outer third; prothorax as long as wide, parallel, with nearly straight sides, narrowing toward the base, which is not quite as wide as the apex; surface sharply, densely and unevenly but uniformly punctate, with a fine smooth, entire elevated median line, without discal callosity; scutellum one-half wider than long, rounded, conformably pubescent; elytra parallel, not quite four times as long as wide, between a third and fourth wider than the prothorax, feebly narrowing and with dehiscent suture behind, each apex evenly rounded, the sutural angle not spiculate; punctures coarse and well separated, becoming fine and more irregular behind; legs moderate, the hind tarsi perfectly parallel, the second joint scarcely as long as wide. Length (♀) 14.5 mm.; width 3.5 mm. Arizona (near Tucson),—Tucker. One specimen.

This species is also very different from any other at present known to me and is especially distinguished by the antennæ, with the subbasal joints virtually spineless and also by the parallel, rectilinear prothorax.

Anoplium linelli n. sp.—Parallel, convex, shining and deep black throughout; pubescence coarse, sparse and moderately short, uniform, except that there is a loose irregular transverse condensation at the middle of the elytra, the hairs behind this condensation much closer than those thence to the base; head but

very slightly narrower than the prothorax, rather finely, sparsely punctate, the eyes widely separated in both sexes; antennæ more or less nearly three-fourths as long as the body, notably thick, gradually attenuate and compressed (♂), or with the last three joints abruptly narrower than the preceding (♀), sparsely pubescent, more finely and densely so apically and with longer, sparse and erect hairs; third joint but little over twice as long as wide, the fourth slightly shorter, the terminal spine very small and short, that of the fourth simply an acute angulation (♂), or a very minute spine (♀); prothorax about as long as wide, the parallel sides unevenly arcuate, the basal angles rounded; surface rather coarsely and closely punctate, with an uneven central oval smooth space but with no other irregularity; scutellum densely tawny-pubescent, medially impressed; elytra not quite three times as long as wide, parallel, conjointly evenly rounded at apex, without sutural spicule, about a third wider than the prothorax; punctures coarse, deep and well separated before the condensation, smaller and not quite so sparse behind; legs normal but unusually thick. Length (♂♀) 11.0–12.6 mm.; width 2.7–3.4 mm. Arizona (near Tucson),—Tucker. Seven specimens.

Differs from *Elaphidion albofasciatum* Linell, from Los Angeles Co., Calif., in having no trace of the feeble lateral thoracic tubercle, in the shorter basal joint of the hind tarsi, which is scarcely as long as the next two and in its materially smaller size of body. It is named for Mr. Martin L. Linell.

Anoplium tuckeri n. sp.—Parallel, moderately convex, rufo-piceous, rather shining, the anterior parts duller; pubescence coarse, moderate in length, suberect and ashy, uniform; head slightly narrower than the prothorax, deeply and densely punctate, the eyes only moderately separated; antennæ (♂) four-fifths as long as the body, very slightly thicker basally; pubescence loose, without notably long erect hairs, the third joint with a remarkably minute though evident spine, the fourth simply angulate, or (♀) shorter and more slender, two-thirds as long as the body; prothorax as long as wide or somewhat longer, parallel, with moderately and somewhat unevenly rounded sides; surface even and uniform throughout, with large contiguous shallow punctures, forming a reticulation, the apical margin smoother; scutellum moderate, rounded, densely pubescent, unevenly canaliculate; elytra three times as long as wide, conjointly rounded at apex, without spine or sinus, about two-fifths wider than the prothorax, the sides parallel and straight; punctures well separated, rather strong and deep, gradually becoming small posteriorly; legs moderate in length, very slender, the first joint of the hind tarsi as long as the next two (♂), rather shorter (♀). Length (♂♀) 9.5–11.0 mm.; width 2.3–2.6 mm. Arizona (near Tucson),—J. F. Tucker. Six specimens.

In the female the subapical antennal joints are shorter and more compressed than in the male, with their inner sides moderately oblique, very rapidly so at base, and the apical angle rather acute.

Anoplium nanulum n. sp.—Smaller and more slender than *tuckeri*, the elytra shining; moderately convex, deep black to paler, the legs picescent; pubescence coarse, gray, moderately long, sparse and uniform; head about as wide as the prothorax, moderately and closely, rugosely punctate, the eyes moderately separated; antennæ very slender, not quite three-fourths as long as the body (♂), or two-thirds (♀), the outer joints slender and uncompressed in both sexes;

short pubescence rather loose, the erect hairs very sparse, the joints without apical spinules; prothorax not quite as long as wide, otherwise nearly as in the preceding; elytra somewhat less than three times as long as wide, loosely, evenly and very moderately punctate, finely so apically, a fourth wider than the prothorax, the apex as in *tuckeri;* legs more slender; joints of the hind tarsi each nearly three times as long as wide. Length (♂ ♀) 7.7–8.3 mm.; width 1.75–2.0 mm. Arizona (near Tuçson),—Tucker. Seven specimens.

Closely allied to *tuckeri* but it differs in its smaller size, much more slender outline, shorter antennæ and smaller elytral punctures.

Anoplium rinconium n. sp.—Moderately slender and convex, parallel, black, the elytra obscure, the under surface and legs brighter, rufous; pubescence coarse, sparse, pale, uniform, long and erect; head evidently narrower than the prothorax, densely and rugosely punctate, the eyes smaller than usual and remotely separated; antennæ (♂) rufous, slender and filiform, more than three-fourths as long as the body, with many long erect stiff hairs; third joint distinctly spined at apex, the fourth with a minute sharper spicule, the third joint unusually elongate, much longer than any other joint; prothorax distinctly longer than wide, the parallel sides very obtusely subangulate behind the middle, convex; surface even, without trace of shining line or spots, very moderately and shallowly punctate, the reticulate punctures closely crowded; scutellum moderate, subsemicircular, flat and extremely densely clothed throughout with whitish pubescence; elytra barely three times as long as wide, between a third and fourth wider than the prothorax, the humeri slightly tumid; sides parallel and straight, rounding gradually to the apices, which are narrowly, transversely truncate, with obtuse inner and outer angles; punctures rather coarse, deep and well separated, gradually small and subasperate apically; legs slender, with long sparse hairs, the tarsi very slender, the anterior slightly swollen in the male; abdomen moderately and remotely punctate, the metasternum more strongly and closely. Length (♂) 8.0 mm.; width 1.8 mm. Arizona (Rincon Mts.). One specimen.

A remarkably distinct small species, differing from either of the two preceding in the more bristling antennæ, with the third and fourth joints spined, in the smaller and more widely separated eyes, less coarse thoracic punctures, much longer stiff erect hairs of the elytra, densely decumbently albido-pubescent scutellum and remarkably slender tarsi.

The three preceding species belong to the subgenus *Peribœum* Bates, but no one of them seems to be at all close to the Mexican species.

Pseudibidion Csy.

The following subtropical species is smaller and much narrower than *unicolor* Rand:

Pseudibidion pertenue n. sp.—Very slender, parallel, convex, shining, pale flavo-testaceous, the anterior parts a little darker rufous; erect hairs pale, rather coarse, moderately long and very sparse; head scarcely wider than the prothorax, strongly and sparsely punctate, more closely and subrugosely between the eyes, which are very moderate and remotely separated; antennæ (♂) scarcely as long as the body, very slender, filiform, the third and fourth joints with distinct slender

spine, that of the former less than a third as long as the fourth joint; prothorax parallel, with bisinuate sides, almost one-half longer than wide; apex very briefly tubulate; base feebly sinuate, with small sharp angles; surface with a feebly impressed transverse line near the base; punctures rather coarse and numerous but not at all dense, also a smooth biabbreviated median line; scutellum moderate, glabrous; elytra about four times as long as wide, nearly a third wider than the prothorax, the sides straight and parallel; apices moderately sinuate, with small acute projections, the outer the longer; surface even, rather strongly and closely punctate, the punctures somewhat less coarse apically; legs slender, the tarsi almost as wide as the tibiæ. Length (♂) 9.2 mm.; width 1.5 mm. Florida.

Differs from *unicolor*, besides its more slender form, in the less elongate antennæ, with fewer erect hairs, much more elongate prothorax, with bisinuate and not broadly arcuate sides, this being only a little longer than wide in *unicolor*, and in the coarser pronotal punctures, with more imperfect wide and flat median smooth line.

Eucrossus Lec.

Although founded upon the female, I feel quite sure that the following species is different from *villicornis* Lec.:

Eucrossus phœnicis n. sp.—Rather broad and only moderately convex, blackish-piceous, the legs and under surface slightly rufescent; pubescence obscure, minute, sparse and inconspicuous, with a few moderate erect hairs along the sides of the body; head two-thirds as wide as the prothorax, the tempora long straight and converging; surface moderately, loosely and irregularly punctate, with a fine impressed median line; eyes moderate, very widely separated; mandibles prominent, the inflexed tip very acute; antennæ nearly four-fifths as long as the body, dark rufous, subglabrous, slender, gradually thicker basally, the first joint more oval, three times as long as wide, the third swollen at tip, three-fourths as long as the prothorax, the following joints shorter, 9–11 successively much shorter, the joints with long sparse erect hairs, 3–5 with rather small slender terminal spine; prothorax short, but little less than one-half wider than long, the sides strongly, angularly prominent at basal two-fifths, thence parallel and nearly straight for some distance anteriorly, then broadly rounded to the apex, very oblique posteriad to a small basal sinus; surface moderately shining, with sparse and moderate punctures, opaque laterally, with nearly similar punctures; median line narrowly incised, except at apex, the surface with an obtuse shining tubercle just beyond the middle inside lateral fourth and, more posteriad, a feebly tumid double line to a deep and obliquely transverse impression just before the base; scutellum rounded, broadly impressed and subglabrous; elytra two and three-fourths times as long as wide, much widest at base, with the oblique sides straight, only a fifth wider than the prothorax, the combined apex broadly and obtusely rounded, each with two feeble raised lines, the surface with strong sparse punctures, smaller basally and apically; legs long and slender, the first joint of the hind tarsi as long as the entire remainder. Length (♀) 23.0 mm.; width 5.8 mm. Arizona (Phoenix).

Differs from *villicornis* in its nearly black and not testaceous coloration, also in the angulate sides of the prothorax, which is probably not entirely a sexual character. From the Owen's Valley female mentioned by LeConte, it differs in having the pronotal punctuation virtually uniform in size throughout.

Haplidus Lec.

The type of the present species is larger and much broader than any one of a rather large series of *testaceus* Lec., represented by both sexes.

Haplidus breviceps n. sp.—Parallel, moderately convex, blackish-piceous and shining; pubescence subdecumbent, moderate in length and sparse; head fully two-thirds as wide as the prothorax, densely and deeply punctato-rugose, with rather small and remotely separated eyes and very small mandibles; antennæ long, very slender and filiform, piceous, with sparse erect hairs, the fourth joint much shorter than the equal third and fifth; prothorax a fifth or sixth longer than wide, slightly widest near basal fourth, the sides thence straight and feebly oblique nearly to the apex, where they are rapidly rounded and broadly rounded posteriorly to a very brief tubulation; surface coarsely, closely and unevenly punctate, with four feeble elevations, forming a square, the median line almost unmodified but having a very minute granule just behind the middle; scutellum triangular, almost glabrous; elytra slightly over three times as long as wide, about a third wider than the prothorax, the apex rapidly and obtusely rounded; sides straight and feebly oblique; surface loosely and very moderately rugulose, with minute and a few slightly larger punctures; abdomen long and very slender; legs moderate in length, very slender, the hind tarsi very slender, with the first joint equal in length to all the rest. Length (♀) 15.5 mm.; width 3.7 mm. New Mexico (near Fort Wingate).

The head differs greatly from that in either sex of *testaceus*, being broader, with much more remote eyes and shorter neck, this being notably long in the very much smaller head of *testaceus*.

Paranoplium n. gen.

Body parallel, convex, the eyes moderate, coarsely faceted and well separated. Antennæ long, slender, filiform and wholly unarmed. Prothorax fully as wide as the elytra and very differently sculptured. Scutellum small, rounded, convex and closely punctate. Elytra long, rectilinearly parallel, each with two fine costæ disappearing a little behind the middle, the outer strong, the inner feeble. Legs very slender, the anterior shorter and much thicker, the anterior coxæ rather large. Met-episterna even, narrowing at apex. Abdomen cylindric, with subequal segments, the last obtuse, with a minute apical emargination in the male. Type *densicolle*.

Paranoplium densicolle n. sp.—Perfectly parallel, piceous, the anterior parts nearly black, the under surface and legs obscure rufous, the femora shaded darker distally; head (♂) three-fifths as wide as the prothorax, strongly and closely punctate, with a very finely incised median line, wanting basally; eyes almost divided; antennæ slender, obscure rufous, a fifth longer than the body in the male, having many erect hairs, the joints with rather strong discrete punctures, the basal joint thicker, suboval, nearly three times as long as wide, 3–11 decreasing in length, the apices entirely simple; prothorax nearly as long as wide, as wide as the elytra, slightly widest somewhat behind the middle, the sides

broadly arcuate, more rapidly so and incurvate basally to a short broad tubulation, which is separated by an obtusely impressed line; surface very even and having throughout fine, deep and very dense, discrete punctures and minute subdecumbent pubescence, the median line with a very short incised line near the tubulation; elytra about four times as long as wide, rapidly and obtusely rounded at apex, with parallel and straight sides; surface shining, with rather coarse, deep, loose and somewhat irregular punctures and moderate stiff inclined hairs; hind legs much longer than either the first or second, the tarsi moderately slender, the first joint shorter than the remainder; anterior tarsi shorter and notably thick, parallel. Length (♂) 18.0 mm.; width 3.6 mm. A single specimen, without indication of locality.

This species came to me from a long forgotten and unrecorded source, under the name *Anoplium imbelle*, a species that I do not at present possess, but it bears no very close relationship to any *Anoplium*, and should evidently form a distinct genus. Some of its characters are suggestive in a certain way of *Œme*.

Œme Newm.

The rather numerous species of this genus are elongate and parallel and in general have thin integument and a deeply basally constricted prothorax. The species that I happen to have in my collection at the present time are the following:

Spines along the lower side of antennal joints 3–5 strong and very distinct, decreasing slightly 2

Spines very minute or obsolete 4

2—Elytral pubescence composed of well-separated and extremely minute hairs. Color piceous, the lustre rather shining; head nearly four-fifths as wide as the prothorax, loosely and subrugosely punctate, with a deep glabrous impression just behind the large interantennal ridge; eyes well developed, separated by about a third of the width, the mandibles rather small, black; antennæ (♀) very slender, but little shorter than the body, with joints 3–11 gradually decreasing in length, the first joint subcylindric, transversely rugose and with a few minute tubercles; prothorax transverse, nearly one-half wider than long, widest slightly behind the middle, rapidly and tubularly constricted in basal fifth or sixth; surface finely, granularly punctate, loosely so at the sides, sparsely and unevenly medially; pubescence remote and very short; elytra between three and four times as long as wide, two-fifths wider than the prothorax, with straight and perceptibly oblique sides and individually rounded apices, each with three very evident discal costules; surface rugulose, with a few small punctures, not distinctly shining; legs very slender, the first joint of the hind tarsi slightly longer than the remainder. Length (♀) 17.0 mm.; width 3.7 mm. Nevada (Las Vegas),—Spalding. **minutivestis** n. sp.

Elytral pubescence composed of short but very obvious, pale and similarly decumbent hairs 3

3—Posterior legs long and very thin. Color very pale yellowish-brown, subopaque; pubescence of the head and prothorax but little longer than that of the elytra; head (♂) nearly four-fifths as wide as the prothorax, unevenly and closely punctate throughout, the interantennal ridge large, the mandibles very small; eyes notably large, very deeply emarginate, separated by

somewhat more than a third of the width; antennæ evidently longer than the body, the joints gradually shorter and thinner; lower spines of the third and fourth joints conspicuous, of the fifth much smaller and less numerous; prothorax only a fifth or sixth wider than long, widest and with strongly rounded sides slightly behind the middle, strongly constricted at basal sixth or seventh; surface moderately and rugulosely punctured, with a fine impressed median line; elytra three and one-half times as long as wide, scarcely a fourth wider than the prothorax, the sides straight and distinctly oblique, each strongly rounded at tip; surface of each with about two fine feeble costules, the surface even, finely, very closely and regularly punctate; first joint of the hind tarsi scarcely as long as the remainder. Length (♂) 14.5 mm.; width 3.0 mm. New York.....**rigida** Say

Posterior legs much shorter, thicker; all the tibiæ very hairy. Color a little darker brown, dull in lustre, elytral pubescence short, coarse, pale and rather dense, that of the pronotum slightly longer and sparser; head three-fourths as wide as the prothorax, finely and closely punctate, the eyes well developed, separated by a little more than a third the width, the mandibles very small; tempora parallel; antennæ (♂) moderately slender, thinner apically, distinctly longer than the body, the hairs coarse, forming a closer fringe beneath, the third joint fully two-fifths longer than the fourth, the first longer and thinner than usual, between three and four times as long as wide; inferior spines distinct on the third and fourth joints, virtually wanting beyond; prothorax fully two-fifths wider than long, widest and with strongly rounded sides behind the middle, deeply constricted in nearly basal fifth, transversely impressed at the sides in front of the tubulation; surface finely, densely punctato-rugulose, the median line narrowly impressed in basal half; elytra nearly three and one-half times as long as wide, only a little wider than the prothorax, the straight sides feebly oblique, each apex narrowly rounded; surface of each with three very feeble obtuse costules disappearing apically, very finely, closely and evenly punctate; tarsi as usual. Length (♂) 14.0 mm.; width 2.8 mm. Arizona (locality unrecorded).....**deserta** n. sp.

4—Eyes large and very prominent, much larger than in the preceding, separated by about a third their width. Body narrow, moderately convex, pale yellowish-testaceous, opaculate, the elytra distinctly shining; pubescence pale, moderate in length and not at all dense; head about equal in width to the prothorax, the large ridge between the antennæ but feebly convex; mandibles small, the tempora much less prominent than the eyes, they being about in line with outer contour of the eyes in *deserta;* antennæ (♀) very slender, shorter than the body, sparsely and subevenly pubescent, the third joint nearly one-half longer than the fourth, the inferior spines virtually obsolete, traceable only as feeble crenulation, the first joint long and slender; prothorax a fifth wider than long, widest slightly behind the middle, but with the sides broadly arcuate, oblique and straighter thence to the apex, which is unusually arcuate, deeply constricted near basal fifth; surface opaculate, with moderate loose punctures, the rather broad median line in great part impunctate though scarcely less opaque; elytra more than three times as long as wide, a fourth wider than the prothorax, with straight oblique sides and strongly rounded apices; surface of each with three fine and very feeble obtuse costules, which are obsolete behind, the feebly shining surface finely, evenly and loosely punctulate; legs rather long and very slender. Length (♀) 11.5 mm.; width 2.4 mm. Arizona (probably southern). One specimen.....**incertula** n. sp.

Eyes well developed, much more prominent than the tempora and well separated. Body narrow, pale brownish-testaceous, subopaque (♂), a little more shining and with somewhat stronger and looser sculpture (♀); pubescence pale,

minute and dense (♂), a little less dense (♀); head very nearly as wide as the prothorax, the tempora very much less prominent than the eyes, the mandibles very small; antennæ slightly longer than the body (♂), a little shorter than the latter (♀), very slender and filiform, the third joint distinctly longer than the fourth, the inferior spinules only a series of very feeble obtuse crenules; erect hairs moderate and sparse; prothorax about a third wider than long, the rather prominent sides behind the middle somewhat narrowly rounded; subbasal constriction deep; surface opaculate and densely punctulate, with narrow and feebly impressed, unpolished median line (♂), or more strongly and clearly, roughly punctate, with an unimpressed and partially smooth median line (♀); scutellum small, subglabrous; elytra more than three times as long as wide, only a fourth wider than the prothorax, the straight sides feebly oblique to the rounded apices; surface with about two fine feeble threads, opaculate and finely, very closely punctulate (♂), or more shining and minutely though less indistinctly punctulate(♀); legs very slender; first joint of the hind tarsi much shorter than the remainder, very slender. Length (♂♀) 10.7–12.7 mm.; width 2.2–2.6 mm. Utah (Trout Creek, Juab Co.),—Spalding. The type is a female.

subobsoleta n. sp.

Eyes nearly as in the last but more narrowly separated—by less than a third the width. Female with the coloration, sculpture and short, pale pubescence nearly as in the preceding, but with the head fully as wide as the prothorax, this being of different shape and relatively smaller, the sides broadly rounded behind but almost parallel anteriad, deeply constricted in basal fifth, the apex transverse, and not strongly lobed as it is in the preceding; surface similarly shining and asperately punctate, but with a parallel and clearly defined, entire smooth and polished median line; elytra almost four times as long as wide, fully a third wider than the prothorax, otherwise nearly similar to that of *subobsoleta;* legs long and very slender. Length (♀) 11.0 mm.; width 2.3 mm. Locality same as the above.....**truncata** n. sp.

The species *costata* Lec., of California is very much larger than any of the preceding, and *strangulata*, of Parowan, Utah, is not only larger but differs in having the elytra not wider than the prothorax; it is smaller than *costata*, but its length is given as 19 mm.; the pronotum is peculiarly plicate also.

Brothylus Lec.

The type of this genus, *gemmulatus* Lec., is remarkable in having a triangular tooth at each side of the prothorax, nearly as in *Chion*, the others have no vestige of this tooth, so far as I know, and the three following seem to be hitherto undescribed:

Brothylus castaneus n. sp.—Rather large and broad, red-brown, the vestiture short, coarse and close though not very dense, yellowish in color; head three-fourths as wide as the prothorax, with the eyes well developed, separated by two-fifths of the width; coarse deep sculpture evenly concealed by the vestiture; palpi rather short; antennæ (♂) a little longer than the body, having a fringe of long, gradually diminishing loose hairs beneath, the third and fifth to eleventh joints subequal in length, the fourth about two-thirds as long; prothorax very nearly as long as wide, convex, the sides subparallel, broadly arcuate, straighter and oblique in basal two-fifths to the fine concavity along the beaded basal

margin, which is about equal to the apical but less arcuate; surface with coarse and deep, rather close punctures, partially concealed by the coarse vestiture and with an acute tubercle near the median line just beyond the middle of the length, the median line narrow, glabrous and uneven thence not quite to the base; scutellum angulate behind; elytra not quite two and one-half times as long as wide, a fourth wider than the prothorax, parallel, with straight sides, broadly conjointly rounded at apex; surface very even, finely, rather closely punctate and with numerous small glabrous shining asperate spots, each bearing a longer erect hair; an imperfect subdenuded fascia is visible near three-fifths from the base; legs long and rather slender, the tarsi somewhat thick, the first joint of the posterior as long as the next two. Length (♂) 21.0 mm.; width 6.0 mm. Utah (Provo),—Spalding.

Recognizable easily by the broad form, long and only moderately slender antennæ and other characters as stated above.

Brothylus consors n. sp.—Much smaller and narrower, parallel, somewhat shining, pale brownish-rufous in color throughout; pubescence short, rather dense and yellowish, the sparse erect hairs moderately long; head four-fifths as wide as the prothorax, the eyes very moderate in size and widely separated; surface moderately and loosely punctate; antennæ (♂) evidently shorter than the body, closely but very finely puberulent, the lower fringe of hairs rather long; joints subequal in length, the fourth but little more than half as long as the others; prothorax slightly though evidently shorter than wide, the sides parallel and feebly arcuate, more rounding at apex and feebly arcuate posteriorly to the high basal bead; surface coarsely and loosely punctate, with feeble tubercles nearly as clearly indicated in the preceding species, the median line unmodified, except by a very fine short incised line at about basal fourth; scutellum evenly rounded at apex; elytra almost three times as long as wide, a fourth wider than prothorax, parallel, with straight sides and rounded apex; surface even, having very fine close punctures, the scattered glabrous spots strong and graniferous basally, elsewhere smoother and much smaller; abdomen similarly sculptured but more finely. Length (♂) 12.0 mm.; width 3.0 mm. Utah (Eureka),—Spalding.

This is probably the smallest known species and is distinguished from the preceding by its shorter and more slender antennæ, feebler thoracic tubercles, more basally coarser elytral spots and many other characters. The legs are slender but much shorter, the tarsi more slender though similarly proportioned.

Brothylus longicollis n. sp.—Parallel, convex, brownish-red, rather shining, the pale vestiture short, decumbent, not quite concealing the surface, still sparser on the pronotum; head but little narrower than the prothorax, the eyes well developed, prominent and widely separated; inter-antennal surface with four sharp longitudinal plicæ; mandibles moderate, red, black at apex; antennæ (♂) evidently longer than the body, filiform but not very slender, the fourth joint three-fifths as long as the fifth; lower fringe short and very loose; prothorax slightly elongate, the parallel sides broadly arcuate; surface convex, very coarsely, confluently and rugosely punctate, with a sharp oblique furrow at each side at base, and an obtusely rounded elevation in the same position as in the preceding species; median line unmodified, except by a feeble obtuse tubercle near basal third; scutellum angulate behind, in great part glabrous; elytra with the usual parallel straight sides and conjointly rounded apex, two and one-half times as

long as wide; surface with coarse and sparse, foveiform punctures basally, becoming finer thence to the apex, the ground very finely, closely punctulate; legs long and slender. Length (♂) 17.5 mm.; width 4.8 mm. Utah (Provo), —Spalding.

Differs from any other species known to me in its more elongate, subcylindric and very coarsely sculptured prothorax. The under surface is rather more loosely pubescent than in *castaneus*, and the tarsi are narrower. There is a very vague darker fascia behind the middle of the elytra, somewhat as in all the other species.

Osmidus Lec.

The type of this genus was described from Cape San Lucas, Lower California, and the two following differ from it in a number of important characters:

Osmidus obscurellus n. sp.—Parallel, rather convex, piceous-black throughout, except the outer margins of the elytra which are testaceous; surface slightly shining, but virtually concealed by the very short subdecumbent ashy pubescence, the erect hairs short and very few in number; head four-fifths as wide as the prothorax, with large eyes, which are separated by a third of the width; surface even, with very moderate and dense, even punctuation and a distinct transverse groove at the bottom of the steep inter-antennal slope, the median line fine, deep, extending to a line between the eyes; palpi slightly unequal; antennæ (♀) slender, filiform, a little longer than the body, minutely and loosely puberulent, the erect hairs along the lower line sparse; third joint nearly a third longer than the succeeding joints, which are subequal; prothorax a little shorter than wide, the sides broadly angulate behind the middle, moderately oblique thence to apex and base; surface even, moderately and closely, somewhat unevenly punctate, with four uneven and very faint swellings on the disk; scutellum subsemicircular; elytra fully a fourth wider than the prothorax, two and three-fourths times as long as wide, the sides parallel and straight; apices narrowly angulate near the suture, but not at all spined; surface with sparse circular denuded punctures, which are asperulate; legs long and slender, the femora slender; first joint of the hind tarsi almost as long as the remainder; met-episterna without trace of scent-pores. Length (♀) 19.0 mm.; width 4.5 mm. Arizona (Baboquivari Mts.),—Snow.

There are many characters separating this species from *guttatus* Lec., such as the form of the prothorax and scutellum, absence of scent-pores on the met-episterna, form of the tibiæ, which could not be said to be stout, and the longer basal joint of the hind tarsi.

Osmidus vestitus n. sp.—Body smaller and much more slender, with the integuments of the elytra more completely concealed by the short dense cinereous decumbent pubescence, this coarser and less dense on the prothorax; integuments black, the elytra, excepting a fine paler outer margin and the under surface, piceous; remote erect hairs short and barely observable, wanting on the prothorax; head but slightly narrower than the prothorax, with large eyes, separated by fully a third of entire width; apical slope steep, the median line distinctly impressed; palpi much more obliquely truncate than in the preceding; antennæ

(♂) very slender, with fine and dense, decumbent ashy vestiture, one-half longer than the body, the third joint nearly a fourth longer than the following joints, with a rather close inferior fringe and a minute terminal spine, rather more evident than that of the preceding; prothorax as long as wide, the sides parallel and evenly, moderately arcuate; surface evenly convex, strongly, closely and evenly punctate, with a slender flat area at each side of the middle, which is differently clothed, the pubescence being finer and denser; median line very finely impressed in anterior half; scutellum semicircular; elytra three times as long as wide, slightly though evidently wider than the prothorax, the sides parallel and straight, each apex sharply angulate near the suture; surface strongly and closely punctate, also with rounded denuded areolæ, each enclosing a still stronger puncture; legs long and slender, the femora slightly less slender; basal joint of the hind tarsi much longer than the next two; met-episterna without scent-pores. Length (♂) 16.5 mm.; width 3.8 mm. Arizona (Phoenix). One specimen.

Differs from the male of *guttatus* in the longer basal joint of the hind tarsi, absence of met-episternal scent-pores and smaller size, probably among many other features, which I cannot allude to at present in the absence of the type of *guttatus*.

The minute terminal spine of the third antennal joint was overlooked by LeConte, if present in *guttatus*.

Chion Newm.

The following is by far the smallest and most slender known at present, and beyond much doubt is valid as a species:

Chion filicorne n. sp.—Narrow and parallel, piceous in color throughout, very slightly shining, the pubescence minute and inconspicuous; head two-thirds as wide as the prothorax, the eyes large and prominent, with large and rounded sinus, separated by about a third of their width; surface loosely and not finely punctato-rugose; antennæ (♂) very slender and evenly filiform, about one-half longer than the body, loosely and asperulately punctate and with a few longer erect hairs; third joint a fourth longer than the following joints, which are subequal, the apices but very little swollen; prothorax a fourth wider than long, the parallel sides strongly and evenly arcuate, with a short sharp spiniform process behind the middle, the base briefly tubulate; surface evenly convex, not very coarsely but deeply and densely punctate throughout, the median line with a short polished smooth line at about basal fourth; scutellum rather longer than wide, parabolic; elytra with close decumbent pubescence, nearly three and one-half times as long as wide, a fifth or sixth wider than the prothorax; sides perfectly parallel and straight, the apices conjointly rounded, each with the usual two spines; surface somewhat finely, very densely, deeply and evenly punctate, each with two fine even obtuse costules, not attaining the apex; legs very slender throughout, finely, strongly and densely punctate; femora briefly bispinose at tip; tarsi slender, the basal joint of the posterior longer than the next two; met-episterna cuneiform, even. Length (♂) 13.5 mm.; width 3.1 mm. North Carolina (Southern Pines),—Manee.

Differs from *cinctum* not only in its smaller size and more slender form, but in the finer sculpture and total absence of any trace of the small pale elytral macula.

Methia Newm.

This is a very aberrant genus and its general position among the other genera had until recently been very uncertain, but, as disposed of at present under the suggestion of Aurivillius, I think the matter is settled so far as we can tell in the absence of detailed life studies and greater knowledge of its comparative anatomy. The following species may be placed near *mormonica* Linell, of which I have a good series from Utah and Phoenix, Arizona, but it is smaller, much narrower and with more cylindric prothorax:

Methia delicata n. sp.—Male parallel, feebly convex, somewhat shining, piceous-black, the elytra pale whitish, irregularly black discally toward base and thence narrowly along the sides and suture to the black apical area; pubescence fine, short, not dense, longer and more bristling on the prothorax; head wider than the prothorax, but slightly narrower than the elytra; eyes large, very deeply emarginate, separated by three-fourths the thickness of the first antennal joint, the intermediate surface somewhat concave, densely rugulose and with a fine distinctly incised median line; antennæ piceous-black, very slender, broken in the type but probably fully two-thirds longer than the body; second joint very short, the third slightly shorter than the fourth and following joints; mandibles very small; prothorax subcylindric, sensibly longer than wide, the sides prominently inflated at the middle; punctures fine and sparse; scutellum very small, rounded; elytra about three times as long as wide, a third wider than the prothorax, the sides nearly parallel, not quite straight, each apex gradually and narrowly rounded; surface of each with three very fine whitish lines, the punctures rather coarse, uneven and close, but not very dense; coxæ all contiguous, the anterior conical; metasternum long; legs slender, sparsely hairy, the hind tibiæ unevenly and minutely serrulate within. Female smaller and narrower than the male, the eyes separated by rather more than the thickness of the first antennal joint; antennæ subsimilar, the long and very slender joints subequal, the second distinct; sculpture throughout nearly similar; legs very slender, the hind tibiæ smooth. Length (♂ ♀) 7.5 mm.; width 1.35–1.65 mm. Utah (Parowan),—Spalding.

In the male the last ventral is short, broadly sinuate at tip, similar to the others in its piceous-black coloration and has a moderate median concavity; in the female this segment is much longer, with its apex deflexed and medially feebly sinuate; it is pallid in color and has the surface even. The integument of the elytra is very thin and delicate.

Methia flavicornis n. sp.—Form much more abbreviated, moderately convex, only slightly shining; head deeper black, the prothorax piceous, flavate at apex and base, the elytra wholly flavate though slightly less pale apically; under surface and legs pale; pubescence short, erect and sparse throughout; head much wider than the prothorax but slightly narrower than the elytra; eyes large, very convex dorsally as well as laterally, contiguous, very deeply emarginate, almost divided; neck much narrowed; antennæ long and very slender, filiform, pale testaceous in color, almost twice as long as the body, the second joint short but distinct; prothorax small, not quite a third wider than long, the sides parallel, very feebly subangulate, not at all constricted, the surface with a fine groove

along the posterior margin, finely, sparsely and indistinctly punctate, opaculate, less so at base and apex; scutellum very small, rounded; elytra two and one-half times as long as wide, nearly two-fifths wider than the prothorax, gradually dehiscent, the sides slightly oblique, nearly straight, the apices narrowly rounded; surface minutely, feebly and loosely punctate, each with three very fine and feeble threads; legs and tarsi very slender; abdomen in the type black, the last segment paler, very much deflexed and with deeply sinuate apex, the surface even. Length 6.0 mm.; width 1.35 mm. Arizona (near Tuçson),—Tucker.

The sex of the type is not certainly determinable, but it may possibly be female, in spite of the large contiguous eyes. This species is allied to *arizonica* Schf., of which I have a large series also taken by Tucker near Tuçson; it is stouter than *flavicornis*, normally black throughout, the elytra sometimes in part pale, the eyes not so completely contiguous and not so inflated dorsally, the prothorax larger and much less abbreviated and the antennæ never wholly pale testaceous.

Malobidion Schf.

This genus of small species is peculiar in having 12-jointed antennæ. The following species resembles *brunneum* Schf., but differs in its smaller size and in characteristics of elytral sculpture:

Malobidion uteanum n. sp.—Parallel, pale rufous, with fine sparse erect hairs; polished head equal in width to the prothorax to slightly wider, the eyes moderate, well separated, more widely in the female; antennæ very slender, the third and fourth joints each much shorter than the fifth and following; prothorax distinctly elongate, parallel, tubercularly prominent at each side just behind the middle, rather coarsely, closely punctate, with a smooth callous spot at outer fourth and apical third, connected to the base by a narrower smooth subcallous vitta, the median line also with an elongate-oval smooth callus, from near the base about to the middle; scutellum small, narrowly rounded; elytra parallel, nearly three and one-half times as long as wide, a third or fourth wider than the prothorax, parallel, with nearly straight sides, the individual apices rather widely rounded, evenly and rather loosely, deeply and somewhat coarsely punctate, gradually more coarsely apically and more finely basally; legs slender, the tarsi very slender, the first joint of the posterior longer than the next two. Length 8.4–9.0 mm.; width 1.65–1.8 mm. Utah (Eureka and Parowan),—Spalding.

Differs from *brunneum*, from the Huachuca Mts., in having the elytral punctures gradually stronger apically than basally; in *brunneum* the punctures are said to be finer toward apex. I counted the twelve joints in the only antenna left intact on my two specimens, before accidentally breaking it and losing the apical parts. The portions left in my specimens do not seem to indicate quite twice the length of the body when perfect.

Eburia Serv.

The following species is quite distinct in its subquadrate prothorax. The femora are briefly but acutely spinose at tip:

Eburia quadricollis n. sp.—Parallel, rather strongly convex, piceous, more blackish above; pubescence very short, abundant but not dense, dark gray; head fully three-fourths as wide as the prothorax, the large eyes slightly prominent and with the usual large sinuation; surface strongly, rugulosely punctate, with moderate incised median line and transverse angulate frontal impression; last palpal joint parallel, truncate; antennæ (♀) scarcely as long as the body, slender, gradually slightly attenuate, densely cinereo-pubescent and with a rather long loose fringe beneath, except apically; third joint nearly a fourth longer than the fourth, which is subequal to those which follow; prothorax not quite a fifth wider than long, the apex and base truncate, feebly arcuate, the latter slightly the wider; sides parallel and feebly sinuate between a feeble obtuse prominence just behind the middle and another subapical, feebly oblique and straight basally; surface with a shining black tubercle at lateral and apical third, the median line with a large feebly callous glabrous area from just beyond the middle to about basal sixth, where it sinuates a broadly arcuate impressed groove extending through median two-thirds; punctures strong and close, finer at apex, only partially concealed by the vestiture; elytra two and three-fourths times as long as wide, nearly a third wider than the prothorax, with parallel, straight sides rounded behind, each apex obliquely sinuato-truncate, the truncature limited by short and moderately sharp angles, each with callous whitish areas, two short and approximate at base and two central, the outer nearly twice as long as the inner; punctures coarse, deep and close, less coarse and looser apically; legs slender. Length (♀) 21.0 mm.; width 6.0 mm. Texas (Comal Co.).

The prothorax is less abbreviated than usual, with the subbasal groove distinct and subinterrupted at the median line; the elytral punctures are coarse, sharply defined and with polished interspaces, the antennæ moderately slender and the legs not very closely pubescent.

Eburia densa n. sp.—Smaller and narrower than the preceding, the surface more opaque, obscure testaceous, an elongate area involving the posterior pale spots, which are arranged as in the preceding species, nubilously blackish; head scarcely more than two-thirds as wide as the prothorax, the short vestiture coarse, not entirely concealing the rather coarse, sparse punctures; antennæ about as long as the body (♀), a third longer (♂); prothorax rather short, a third to fourth wider than long, the sides parallel (♂), subevenly arcuate, a little more prominent but not angulate just behind the middle, or (♀) conforming to those of the preceding species but less accentuated; surface coarsely, closely and subrugosely punctate, obliquely impressed at each side near the base, with two strong black polished tubercles slightly outside of the median line and a little beyond the middle; median line not modified, except behind the middle by a fine groove; scutellum subquadrate; elytra just visibly (♂) or slightly (♀) wider than the prothorax, not quite three times as long as wide, subparallel, broadly rounded behind, each apex narrowly and obliquely truncate, not spinose; surface with strong close punctures, which are but little smaller behind, the narrow interstices not shining but alutaceous; vestiture and ornamentation nearly as in the preceding. Length (♂♀) 16.0–17.5 mm.; width 4.3–4.8 mm. Texas (Brownsville). Three specimens.

Much smaller and narrower than *quadricollis* and with still shorter prothorax. These specimens have been in my collection for many years under the name *ovicollis* Lec., but on consulting

the original description of the latter I can surmise but little resemblance, as the prothorax in *ovicollis* is said to be longer than wide, with the sides broadly rounded; the length is said to be 18–23 mm. The femora are minutely spinose at tip in both of these species.

Ibidion Serv.

Of my two specimens of *townsendi* Linell, one is labeled with the typical locality and the other Santa Rosa, Lower California; they are males and virtually similar in every way, except that in the western example the fourth antennal joint is a little longer. The following species resembles *townsendi* in size and in its slender form, but is much more pubescent and differently ornamented:

Ibidion pubescens n. sp.—Slender, moderately convex, testaceous, the femora darker; pubescence yellowish, very short, dense and paler subapically and basally on the prothorax, coarser and looser on the elytra, not concealing the rather shining integument and having remote stiff and rather long erect hairs, each with two axial yellow spots, not at all callous, the anterior larger, obliquely quadrate, at two-fifths, the posterior small, shorter, at three-fifths; head rounded, barely at all wider than the prothorax, the eyes moderately prominent, crescentiform, the inner part slender, separated by a third the total width; surface evenly convex, loosely and also obscurely punctate; antennæ (♂) about one-half longer than the body, very slender and filiform, the first four joints abruptly much thicker, the fourth four-sevenths as long as the third and four times as long as wide; three subbasal joints compressed and with a fine carina; prothorax three-fourths longer than wide, parallel, the sides very feebly sinuate near the apex and arcuate at base; surface with two small feeble tubercles just beyond the middle, the median line incised, except toward apex and base; surface with a very few remote and distinct punctures; scutellum moderate, rounded, densely golden-pubescent; elytra nearly three and one-half times as long as wide, scarcely more than a third wider than the prothorax, parallel, with straight sides, the individual apices narrowly rounded; punctures distinct but sparse, a line of coarser and widely spaced punctures near the suture except basally; legs moderate, the femora claviform. Length (♂) 8.8 mm.; width 1.6 mm. Texas (Brownsville).

This is a very distinct species, represented by a single specimen received from an unrecorded source; it may belong to *Compsa* Perty—very doubtfully distinct from *Ibidion*—the hind tibiæ being very slender and not at all carinate. *Compsa quadriplagiata* Lec., from Lower California, differs in its larger size, much more elongate prothorax and in the presence of two subbasal thoracic tubercles not traceable in this species.

Pœcilobrium Horn

The following is one of the most minute species of the family and differs from the other two known species by many special characters:

Pœcilobrium minutum n. sp.—Parallel, convex and highly polished, deep black throughout, the upper surface with extremely faint submetallic lustre, virtually glabrous, the fine dark erect hairs remote and scarcely discoverable; head about as wide as the prothorax, with distinct sparse impressed punctures, the eyes very moderate; antennæ deep black, moderately slender, not quite as long as the body, the joints subequal, elongate, obconical, the second about half as long as the third; prothorax just visibly longer than wide, subparallel, the sides broadly arcuate; base broadly and feebly tubulate; surface even, with fine sparse and uneven small punctures, the erect hairs longer toward the sides; scutellum small, concave, rounded; elytra nearly two and one-half times as long as wide, two-fifths wider than the prothorax, parallel and straight at the sides, rounded at apex, dehiscent apically, the inner angles not very broadly rounded; surface coarsely, deeply and rather closely punctate, finely near the apex; legs rather slender, the femora clavate. Length (♀) 3.4 mm.; width 0.85 mm. California (El Dorado Co.).

This species differs very much from *chalybœum* in its smaller size, narrower form, deep black integuments and relatively coarser and closer elytral punctures, and, from *rugosipenne* Linell, in its much smaller size, wholly black legs and absence of any trace of elytral rugosity.

Callimoxys Kr.

The species *sanguinicollis* Oliv., differs very much from *fuscipennis* Lec., in the coarser, deeper and more approximate elytral punctures, arranged for the most part in close-set regular series. The hind legs in *fuscipennis* are frequently bicolored and the prothorax black or bright red. The following species differs appreciably from a large series of *fuscipennis* in my collection, in the strongly bituberculate prothorax on each side and deeper subbasal constriction:

Callimoxys pinorum n. sp.—Of the usual fusoid form, shining, black, the head more alutaceous, the prothorax in the type bright red and the hind femora testaceous in more than basal half, the hind tibiæ gradually toward base and the corresponding tarsal joints, each toward base, testaceous; head scarcely as wide as the inflated basal part of the prothorax, the eyes moderate, prominent, broadly sinuate behind, the antennal sinus small but deep; surface densely, subrugosely punctate; tempora strongly converging; antennæ deep black, rather slender, fully three-fourths as long as the body, the joints subequal, the third a little shorter, the second short and rapidly obconic; prothorax very nearly as long as wide, the sides just behind the middle parallel and prominent, deeply and sharply constricted very near the base, convergent beyond the middle and deeply, subobtusely constricted just behind the strongly elevated and broadly arcuate apex; surface deeply, closely punctate, very uneven, with two strong tubercles at outer fourth, at a third and three-fourths from the base; median line not polished and having a small tubercle at the middle; scutellum very small, rather narrow; elytra broadly dehiscent as usual, gradually narrow and divergently acuminate in about apical half and two and one-half times as long as the prothorax; punctures perforate, moderate and well separated throughout; femora strongly clavate apically. Length 9.5 mm.; width 1.8 mm. North Carolina (Southern Pines),—Manee.

Differs from *sanguinicollis* remarkably in the sculpture of the elytra, in which it more closely resembles *fuscipennis;* from *fuscipennis* it differs in the less densely and less rugosely punctured prothorax, with the subbasal constriction narrower and deeper. The large series of *fuscipennis* in my collection would seem to show that several distinct structural forms are at present confused under this name.

Ancylocera Serv.

The various taxonomic forms in this genus are defined below, more especially from the female antennæ; the body, however, is so very similar throughout that in all probability they are to be regarded as subspecies.

Female antennæ moderately thick, very little more than half as long as the body, the third and fourth joints each distinctly shorter than the fifth; prothorax nearly as wide as the elytra; femora distinctly clavate. Length (♀) 9.7–10.8 mm.; width 2.25–2.3 mm. The measurements taken from the only three females at hand. North Carolina. Not uncommon. **bicolor** Oliv.

A—Narrower than *bicolor*, the prothorax much narrower than the elytra; antennæ shorter, much less than half as long as the body, subequal in width and not much dilated, the eleventh joint narrower and shorter as usual; third joint a little longer than the fourth but shorter than the fifth. Length (♀) 8.9 mm.; width 1.9 mm. Florida (locality unrecorded). **brevicornis** Csy.

B Larger and stouter than either of the two preceding, nearly similar in color and sculpture throughout; antennæ thicker, distinctly more than half as long as the body, the joints 3–6 evidently wider than the following joints, the third and fifth subequal and longer than the fourth, the seventh nearly twice as long as wide, the eleventh narrower and very much shorter than the tenth. Length (♀) 12.0 mm.; width 2.75 mm. Florida (Palm Beach)..... **spissicornis** n. subsp.

The minute eleventh antennal joint in the male is a very remarkable feature in this genus.

Stenaspis Serv.

The following is a remarkable species of this genus, which I have not been able to identify and therefore believe to be undescribed:

Stenaspis insignis n. sp.—Subparallel, convex, rather shining, nearly glabrous as usual; head, prothorax above and beneath and metasternum, excepting the side-pieces, bright red, the entire elytra uniform bright steel-blue; pronotum with a moderate transversely oval polished and somewhat more convex black spot at outer third and just beyond the middle; legs bright red, the knees and the tarsi, except at base, black; head three-fifths as wide as the prothorax, sparsely punctate; antennæ (♀) nearly four-fifths as long as the body, bright red, the second joint and apices of all the other joints black; prothorax nearly

one-half wider than long, the sides parallel, obtusely angulate just behind the middle, rapidly rounding at apex to the apical margin, which is blackish and very much narrower than the base; surface coarsely, deeply and loosely punctate, with a large feeble oblique tumidity near basal and outer fourth, separated from the black spot by a deep impression; scutellum a sharp, elongate triangle, black, pale at base and with a few moderate punctures; elytra two and one-half times as long as wide, only a fifth or sixth wider than the prothorax, the sides straight and very feebly oblique to the rapidly broadly rounded and truncate apex; surface with coarse and close, partially coalescent punctures, which near the apex are less coarse but close; two smoother, very faintly elevated lines on each elytron; abdomen polished, deep black, rather finely, very remotely punctate; legs slender. Length (♀) 25.5 mm.; width 7.8 mm. Texas (Comal Co.).

Allied to *arizonicus* and *validicornis*, especially in the close sculpture of the elytra and general outline of the prothorax, but it differs very greatly in the coloration and sculpture of the latter, coloration of the legs and many other characters.

The modification named *validicornis* may be regarded as a subspecies or variety of *verticalis* Serv.; the outline is more abbreviated, the elytral punctures smaller and the red area at the pronotal base sends out an oblique ramus at each side extending nearly to the apex. The type as thus defined was not the original, but was included in the series with it.

Tragidion Serv.

The following species is allied to *hirsuticolle* Csy., having the antennæ wholly black:

Tragidion parowanum n. sp.—Elongate, subparallel, convex and opaque, deep black, the elytra bright orange, the short basal slope nubilously black; head four-sevenths as wide as the prothorax, with close black erect hairs; antennæ (♂) not quite as long as the body, the joints acutely angulate at apex, the third and fourth joints subequal, the following gradually shorter, the tenth about twice as long as wide, the eleventh narrower, emarginate at apex; prothorax only a fourth or fifth wider than long, the sides subparallel, minutely, sharply dentate just behind the middle, thence oblique and straight to the base; surface densely velvety-opaque, sparsely and indistinctly punctate, the surface with rather long erect dense black hairs; scutellum rather small, equilatero-triangular, black; elytra as wide as the prothorax, two and two-thirds times as long as wide, the sides straight, just visibly oblique, the apex rapidly and broadly rounded; surface with short appressed pale orange-brown hairs, giving a sericeous effect, each elytron with six broad and deeply concave channels, separated by narrow obtuse costæ; legs deep black, the posterior very much longer than the others, nigro-pubescent, the tibiæ densely fringed above and beneath; tarsi parallel, rather narrow; last abdominal segment very short, tawny. Female smaller than the male, with more slender and slightly shorter antennæ. Length (♂♀) 13.2–20.2 mm.; width 3.6–5.5 mm. Utah (Parowan Cañon),—Spalding.

This species differs from *hirsuticolle*, from Fort Wingate, New Mexico, in the more serrate antennæ, rather shorter erect hairs of

the pronotum, very much smaller lateral tuberculation, and also less evident punctuation of the elytra, which are more elongate. The species *auripenne* Csy., which Mr. Schaeffer proposes as a synonym of *annulatum*, is very different in its much smaller size and more slender form, as well as in the minute lateral angulosities of the prothorax and absence of conspicuous dense hairs at the apices of joints three and four of the antennæ.

Batyleoma Csy.

The following species differs from any other in the pale basal joint of the antennæ and very remote and moderate elytral punctures:

Batyleoma remota n. sp.—Cylindrical, polished and bright red, the entire sterna of the hind body and hind coxæ deep shining black; pubescence in the form of long, erect and very sparse hairs, still longer on the prothorax; head only about three-fifths as wide as the prothorax; antennæ missing in the type, except the basal joint, which is bright red; prothorax subglobular, slightly wider than long, widest a little behind the middle, the sides evenly and rather strongly arcuate, minutely and remotely punctate, more evidently at the sides, where there is a small rounded area near the apex, which is rather strongly and closely punctured; scutellum small, black; elytra two and one-half times as long as wide, with parallel straight sides and obtusely, individually rounded apices; surface even, rather strongly but remotely punctate; legs rather long and slender, bright red throughout, the hind tarsi concolorous and fully two-thirds as long as the tibiæ. Length 7.5 mm.; width 2.15 mm. Utah (Washington Field, St. George—2800 feet elev.).

It is probable that the antennæ are pale throughout, as they are in *cylindrella*, which is much more elongate than *remota*. It seems now that *fontinalis* Csy., cannot be held to be higher than a subspecies of *suturalis* Say.

Oxoplus Lec.

The following species somewhat resembles *jocosus* Horn, but differs in its larger size and red abdomen, this being entirely black in *jocosus:*

Oxoplus parviceps n. sp.—Parallel, rather shining and coarsely sculptured, red, the head, scutellum, humeri and a large parallel common plaga in apical two-thirds of the elytra, well separated from the sides except occasionally at apex, deep black; under surface and legs black, the prosternum and abdomen, except at base, rufous; pubescence very short, sparse and inconspicuous; head rather small, only half as wide as the prothorax to but little more, coarsely, densely and subrugosely punctate; antennæ rather slender (♂) and a fifth longer than the body, or thicker and three-fifths as long as the body (♀); prothorax transverse, three-sevenths wider than long, the sides acutely, angularly toothed a little behind the middle; surface feebly concolorously bituberculate medially, coarsely, very densely punctate; elytra two and one-half times as long as wide, or barely

more, a fourth or fifth wider than the prothorax, the sides parallel, straight, rounding posteriorly, obtusely rounded at apex, the sutural angles with very minute spine; surface of each with three feeble smoother costules, the punctures coarse, deep and moderately separated, gradually denser but still coarse posteriorly; legs slender, the tarsi rather short. Length (♂ ♀) 13.8–17.5 mm.; width 4.0–4.85 mm. Utah (Vineyard),—Spalding. Four specimens.

Distinguishable easily from its closer allies in the genus by the coarse elytral punctures, coloration and decidedly smaller head.

Crossidius Lec.

The following species is quite distinct in general habitus, due to its relatively broader and more oblong outline:

Crossidius curticollis n. sp.—Oblong, moderately convex, very slightly shining, ferruginous, the sterna of the hind body piceous, the legs slender, black; pubescence short, coarse, pale, close but not dense on the elytra, longer, erect and bristling on the pronotum, not at all concealing the sculpture; head black, densely rugose; antennæ black, shining, the third joint distinctly longer than the fourth, which is somewhat shorter than the fifth, the basal joint strongly but loosely punctate; prothorax about one-half wider than long, parallel, the sides broadly arcuate, feebly angulate behind the middle and thence oblique and straighter to the base; surface coarsely, deeply, densely and rugosely punctate, black, abruptly ferruginous in about lateral sixth, also with a large oval pointed ferruginous area at the middle, not extending to apex and having its medial part black; scutellum angulate and with dense silvery hair; elytra very nearly twice as long as wide, about a fifth wider than the prothorax, the sides straight, only just visibly oblique, the apices broadly and obtusely rounded; surface pale ferruginous, the suture rather narrowly black from fourth nearly to apex, evenly, strongly and densely punctured throughout, gradually only little less strongly but densely behind, each with three fine obtuse and subimpunctate costules, not extending to the apex; hind tarsi with the first joint much shorter than the last; abdomen very finely, rather closely punctate, ferruginous. Length (♀) 13.8 mm.; width 4.7 mm. Utah (Parowan Cañon),—Spalding.

This distinct species may be placed near *maculicollis*, but differs in its rather broader outline, less maculate pronotum and much less coarse elytral punctures.

Crossidius parallelus n. sp.—Rather narrow, parallel, deep black, the elytra in great part and the abdomen, to slightly behind the apex of the second segment, testaceous; pubescence pale, abundant but not very dense, moderate and inclined on the elytra, notably long and erect on the head and pronotum; head nearly two-thirds as wide as the prothorax, very densely sculptured; antennæ black, rather slender, somewhat longer than the body, the fourth and fifth joints of equal length, and each slightly shorter than the third, the eleventh long, slender, gradually pointed, feebly subconstricted near apical third, as is often the case; prothorax rather short, one-half wider than long, the sides parallel and rounded, a little more oblique basally; surface deeply, somewhat coarsely and very densely punctured, the apical marginal bead fine and moderately elevated; surface even; scutellum small, black; elytra not quite two and one-half times as long as wide, the fine basal wall, and a narrow lenticular sutural vitta in apical three-fifths, black, only very little wider than the prothorax, parallel, with straight

sides, obtuse behind, each with feeble uneven apical truncature; punctures not very coarse, deep, dense but discrete, without evident costulation; legs black, with rather long hairs. Length (♂) 10.5 mm.; width 3.0 mm. Utah (Eureka), —Spalding.

Distinct in its rather small size, parallel outline, in sculpture and coloration. It may be placed near *wickhami*, but differs in its smaller size, much narrower form, still more obsolete costulation, shorter antennæ and other characters.

Crossidius vinosus n. sp.—Oblong, slightly shining, testaceous, the legs black; prothorax almost entirely black, or with testaceous sides; pubescence rather long, pale, abundant but not very dense on the prothorax; head about two-thirds as wide as the prothorax, densely punctato-rugose, rather coarsely pubescent; antennæ (♀) extending barely beyond the middle of the elytra, the third joint longer than the fifth, subequal in the male; prothorax between a third and fourth wider than long, the sides moderately arcuate, feebly prominent just behind the middle, rather more narrowed at apex, black, testaceous in lateral fifth, almost entirely black (♂); hairs long, not very coarse and not concealing the punctures, which are coarse, deep and close-set; elytra feebly tricostulate, a fifth or less wider than the prothorax, parallel, very obtuse or truncate at apex; punctures coarse, deep, perforate, moderately close and very distinct; color testaceous, with a common broad black parallel-sided plaga in more than apical half, abruptly and narrowly prolonged along the suture to near basal third. Length 13.5–14.0 mm.; width 4.0–4.6 mm. Utah (Vineyard),—Spalding.

May be placed in the *pulchellus* section of the genus, but it is very much larger than any so related that is now known.

Crossidius hirsuticollis n. sp.—Parallel, moderately convex, testaceous, the head, the elytral humeri minutely and a discal plaga, abruptly produced anteriorly on the suture to basal third and well separated from the apex, black; entire under surface testaceous, the legs black; pubescence pale, long, very coarse, subdecumbent and matted on the head and prothorax, much shorter and loose on the elytra; head three-fifths as wide as the prothorax, very densely rugose and coarsely pubescent; antennæ almost as long as the body, more slender than in the preceding species, black, scarcely pubescent and not very shining, the third joint subequal to the fifth but thicker, the fourth almost four-fifths as long, the eleventh much longer than the tenth, gradually pointed; prothorax two-fifths wider than long, the sides subparallel, arcuate, with a small but distinct obtuse prominence just behind the middle; punctures coarse, deep and dense, in large part concealed by the very coarse vestiture; elytra only slightly wider than the prothorax, two and a third times as long as wide, subparallel, obtuse and narrowly truncate at apex, the truncatures feebly defined; surface feebly and obtusely tricostulate, coarsely, deeply and rather closely punctate, less coarsely so behind as usual; legs slender, coarsely, loosely pubescent; basal joint of the hind tarsi longer and thicker than the last. Length 12.0 mm.; width 3.7 mm. Utah (Stockton),—Spalding.

The type is probably a male and the species may be placed just after the preceding. Judging by the rest of the genus, the differences are not such as could determine it as the male of *vinosus*, and I therefore consider it a distinct species. The two specimens

of *vinosus* have, besides this, certain mutual differences which may indicate sex.

Amannus Lec.

The following species is allied to *vittiger* Lec., but differs in its smaller size, entire and not basally abbreviated black elytral vitta and other features:

Amannus brevis n. sp.—Oblong, not very slender, rather shining, black, the elytra flavate, each with a rather broad black vitta, from the base, involving the humeral callus, broadly to apex, the suture narrowly and nubilously blackish, the external marginal bead brown; under surface densely silvery-pubescent, black, the legs black and rather short but slender, the slender hind tarsi with the first joint a little longer than the next two; anterior pubescence above pale, rather long and erect but not dense, that of the elytra short; head three-fifths as wide as the prothorax, strongly, unevenly and very loosely punctate; antennæ rather longer than the body, black, the third joint nearly one-half longer than the fourth; prothorax a fourth or fifth wider than long, the sides arcuate, a little straighter anteriorly; apex not beaded and much narrower than the base; surface subevenly convex, strongly, closely punctate, the median line narrowly smooth, with a small callus near basal third; scutellum equilatero-triangular, black; elytra two and one-half times as long as wide, very little wider than the prothorax, the sides just visibly oblique, the apex broadly obtuse, each broadly and feebly subtruncate, each very finely and feebly bicostulate, deeply, moderately and rather closely punctate; abdominal vestiture very narrowly denuded at the apices of the second and third segments, the last two segments short. Length 8.7 mm.; width 2.4 mm. Utah (St. George).

Recognizable by the coloration, sculpture and vestiture. In the single type the two antennæ are somewhat different, the right being much longer than the left; but as there are some traces of mucilage, it is probable that there has been some mistaken repair work. I forget how the specimen came to me.

Taranomis Csy.

The genus *Sphœnothecus* Dup., is represented in my collection by *trilineatus* Dup., from Guerrero, Mex.; it is a very much larger, heavier and more rhomboidal species and with thicker antennæ than the Texan *bivittatus* Dup., which I made the type of *Taranomis*, a genus with very slender antennæ and prominent ivory vittæ on the elytra and wholly distinct from *Sphœnothecus*. The following are two additional species of *Taranomis:*

Taranomis cylindricollis n. sp.—Elongate, convex, black and rather shining, the prothorax red, black at apex and base and also on the prosternum, but not on its side-pieces; elytra with two entire prominent discal vittæ of ivory-white; pubescence pale, moderate and rather sparse, on the under surface cinereous, decumbent and dense, the abdominal segments glabrous along their apices; legs rather long and slender, with very loose stiff hairs, rufous, the tarsi black,

the hind tibiæ also black; head nearly three-fourths as wide as the prothorax, rather strongly, loosely punctate, the eyes finely faceted, deeply sinuate, shallowly so behind; antennæ black, the basal joint strongly, loosely punctate and in great part rufous, the remainder very slender and twice as long as the body (♂); joints 3–11 equal in length; prothorax as long as wide, parallel, with feebly arcuate sides, a little more rounding at apex; surface rather strongly, deeply, evenly and loosely punctate, yellowish decumbent pubescence dense in a sublateral vitta; scutellum pointed, triangular, one-half longer than wide; elytra about three times as long as wide, about a fifth wider than the prothorax, the sides nearly straight and strongly oblique; apex slightly over half as wide as the base; arcuately truncate, the inner angles minute and acute; punctures deep, moderate and close; summits of the ivory vittæ smooth; hind legs much longer than those anterior, the hind thighs very slender, strongly bending inwardly toward base. Length (♂ ♀) 10.5–12.0 mm.; width 2.6–3.0 mm. Arizona (near Tuçson),—Tucker. Four specimens.

The form of the body and especially of the prothorax, coloration and the very long slender antennæ, will readily serve to identify this species, which is quite different from the following. In the female the antennæ are noticeably thicker and only about a fourth longer than the body.

Taranomis nematocera n. sp.—Smaller and narrower than the preceding, almost similar in most of its structural characters, but differing in having the prothorax widest and prominent at the sides just behind the middle, the surface with similar pubescent vittæ but more sparsely punctate; head noticeably smaller; elytra shorter, the ivory vittæ relatively more widely separated and with the outer vitta narrower and more distant from the margin. Length (3♂, 7♀) 7.7–10.7 mm.; width 1.9–2.7 mm. Arizona (near Tuçson),—Tucker.

These species are undoubtedly closely allied, but I believe them to be distinct. In this part of the series not only species but genera are built so nearly upon similar lines that considerable study has to be expended on them.

Stenosphenus Hald.

This proves to be a rather large genus and some undescribed species have recently come to light. The two following have a more or less transversely oval prothorax and may be considered as allied in some measure to *notatus* Oliv.

Stenosphenus pinorum n. sp.—Stout, convex, shining, deep black throughout, the entire prothorax above and beneath uniform bright red; pubescence sparse, moderate in length, closer and longer at the sides of the prothorax, wholly wanting on the punctureless median parts; head three-fifths as wide as the prothorax, strongly and rugosely but loosely punctate, with a partial fine incised median line; antennæ slender, evidently longer than the body, the third joint a fourth or fifth longer than the fourth, the others decreasing gradually and very slightly in length, 3–7 with well-developed apical spine; prothorax almost a third wider than long, the sides parallel, evenly and rather strongly arcuate; median half impunctate, feebly and sparsely so at apex and base; scutellum semicircular,

with close and fine, appressed silvery pubescence; elytra two and one-half times as long as wide, barely a fifth wider than the prothorax, the sides nearly straight, very feebly oblique, gradually broadly arcuate distally, the apices narrowly and deeply sinuate, with sharp triangular external tooth; punctures coarsely impressed and rather close laterally, less coarse and much sparser thence internally; abdomen rather finely, remotely punctate; legs long and slender. Length (♂) 10.6 mm.; width 2.85 mm. North Carolina (Southern Pines),—Manee. One specimen.

Allied more closely to *notatus* than to any other species, but differs in its smaller size and slightly less robust outline, also in the total absence of the black thoracic macula and altogether in the character of the elytral punctures.

Stenosphenus castaneus n. sp.—Rather stout, but a little less so than in the preceding, shining, pale castaneous, the entire prothorax bright rufous; pubescence dark gray, rather short, fine and not dense on the elytra, erect along the sides, almost wanting on the prothorax but with a very few sparse and erect hairs at the sides; head rather small,only four-sevenths as wide as the prothorax, having a few deep longitudinal rugæ, the eyes very moderate; antennæ barely equal in length to the body, the third joint much longer than in the preceding, nearly three-fourths longer than the fourth, which is shorter than the fifth, 3–7 rather strongly, very finely spined at apex; prothorax about a fifth wider than long, the sides parallel, evenly arcuate, a little more rounded apically to the very short apical tubulation; surface impunctate, excepting a very few punctures basally; scutellum small, obtusely triangular, finely and not very densely puberulent; elytra about a fifth or sixth wider than the prothorax, two and one-half times as long as wide, the sides only just visibly oblique, rounding gradually behind, the tips very obliquely truncate, the outer angle strongly developed and very sharp; punctures very moderate, deep, very even in size and distribution and well separated; abdomen polished and subglabrous, the legs slender, moderately long. Length (♀) 10.0 mm.; width 2.6 mm. Texas (locality unrecorded). One specimen.

This species is isolated so far as known to me, but may stand in the list just below the preceding.

Cyllene Newm.

About fifty years ago Dr. LeConte described a curious specimen given to him by Dr. Leidy, by whom it was taken in Utah, under the name *brevipennis*. I do not think it had been rediscovered until very recently, when a specimen in perfect condition was sent to me by Mr. Spalding. Uncertainty regarding the species was so pronounced that in the Leng list it is recorded doubtfully as a synonym, not of any *Cyllene*, but of *Xylotrechus obliteratus* Lec.! I find that *brevipennis* is not only a valid species but one of the most remarkable of the Clytinæ. The three abdominal segments protruding behind the elytra measure between 7 and 8 mm. in length, and the elytra are 10.5 by 5.6 mm. in size; the pronotum, as stated by LeConte, has no trace of transverse fasciation, which probably gave rise to the mistake of transferring it to *Xylotrechus*.

The form described by me as *reducta* may take its place as a synonym of *crinicornis* Chev., and *fiticornis* Csy., as a subspecies.

Calloides Lec.

Mr. Spalding has also sent me recently, from Provo Cañon and Stockton, a male and female of *mormonus* Schf. It forms a valid species, not by any means a variety of *nobilis* Harris, the character of the markings being distinctly different. It is a much more elongate species, especially in the male, than either *biformis* or *muliebris* Csy. The short oblique discal fascia near basal third is sinuate anteriad and posteriad, and is not a transverse oblong spot as it is in the two just mentioned.

Clytoleptus Csy.

C. gracilicornis Csy., is a smaller and narrower species than *carolinensis* and the types are from Missouri and not Indiana, as originally stated; the head is smaller and the antennæ extremely fine and filiform.

Xylotrechus Chev.

The following species belongs in the *insignis* section, in which the markings of the male are much less pronounced than in the female, this being particularly the case in *obliteratus* Lec.

Xylotrechus uniformis n. sp.—Subparallel, convex, opaculate, rufo-piceous, the legs a little paler, obscure ferruginous; vestiture short and coarse, dense on the elytra, sparse and similarly decumbent on the prothorax, very short on the head, which is only four-sevenths as wide as the prothorax; front longitudinally carinate between the antennæ, which are short, extending barely to the thoracic base, the third joint slightly more than twice as long as wide, the sixth three-fourths longer than wide; prothorax rounded, convex, but little wider than long, like the head extremely densely though rather less finely punctate, even throughout; scutellum semicircular, blacker; elytra not quite two and one-half times as long as wide, but very slightly wider than the prothorax, the straight sides very slightly oblique, the apices broadly rounded; surface moderately and extremely densely punctate, without transverse ornamentation of any kind; hind tarsi very slender, the first joint distinctly longer than the rest. Length (♂) to tip of the elytra 15.0 mm.; width 4.6 mm. Oregon (Josephine Co.),—Nunenmacher.

This species seems to be very distinct from any of the other allies of *insignis*, but it would be interesting to observe the differences in vestiture of the female.

Longitarsis and *montanicus* Csy., may be regarded as subspecies of *undulatus* Say.

Euryscelis Chev.

The two following species are of a subtropical type and are probably more or less closely allied to *suturalis* Oliv., from Haiti, differing in the much less elongate antennæ, which are 12-jointed:

Euryscelis megalopus n. sp.—Elongate, convex, red-brown, the anterior parts piceous; elytra rather shining; pubescence very short and closely decumbent, sparse throughout the pronotum and not very pale, dense and whitish in a very irregular sutural line on the elytra, from the scutellum to apical fifth, this line with a bifurcation near basal fourth, the branches outwardly oblique anteriad, also slightly dilated at the end and subtriangularly so at about the middle; remainder of the surface with minute finer dark hairs, two small sublateral spots and a line along the apical truncature, white; under surface dark, the posterior part of the meso- and metasternum white, also the sides of the first two ventrals; eyes subequally lobed, the sinus small, deep; antennæ (♂) half as long as the body, serrate distally, with joints 4 and 5 subequal and each a little shorter than the third; prothorax large, nearly as long as wide, the sides feebly converging throughout, slightly arcuate; base arcuate, very much wider than the apex; surface strongly, very densely punctate and with some small sparse asperate nodules, especially at the sides basally; elytra subequal in width to the prothorax, two and three-fourths times as long as wide, the sides nearly straight and strongly oblique, the very oblique apical truncature strongly spinose externally; legs very long, the posterior thick, the middle femora also notably long and thick; first joint of the hind tarsi very much longer than the entire remainder. Length (♂) 17.0 mm.; width 4.7 mm. Florida (locality unrecorded).

Readily to be known by the large prothorax, long and heavy legs, excepting the small first pair, and by the complex sutural adornment of the elytra.

Euryscelis subtropica n. sp.—Smaller and much more slender, paler red-brown throughout, the short pubescence of the same nature and coloration as in the preceding, but different in disposition; eyes with the lower lobe very much longer than the upper; antennæ about half as long as the body, inflated distally, the last joint rounded, the third and fifth joints subequal in length, the fifth thicker and each much longer than the fourth; prothorax as long as wide, parallel, the sides feebly and subevenly arcuate, constricted at base, the latter arcuate and distinctly narrower than the apex; surface densely, subrugosely punctate, with scattered acute nodules, with some transverse along the median line, finely, remotely pubescent, the hairs denser and whiter behind the acutely elevated apical margin, feebly at base and more broadly at the sides; scutellum with a patch of dense whitish hairs; elytra fully three times as long as wide, barely visibly wider than the prothorax, the sides distinctly oblique and nearly straight; apices with deeply oblique sinus, the inner limit with a small, the outer with a notably large, acute tooth; disk with a broad irregular patch of the whiter hairs in slightly more than basal half, which is contracted near its apex and with two small oblique denuded patches near base and, near the apex of each elytron, there is a very dense white area, emarginate at base, with its inner ramus the longer; posterior margin of the meso- and metasternum and sides of the first two ventrals with small white patches; legs in the type rather long and slender, the first pair much shorter. Length (♀) 13.0 mm.; width 3.25 mm. Florida (Key Largo).

Differs very much from the preceding in the shape of the eyes, form and sculpture of the prothorax and disposition of the elytral

ornamentation; the great differences observable in the antennæ are, at least to some degree, sexual without doubt. This is a very remarkable species; it was named *suturalis* in my collection, but this is probably an error. The hind margin of the anterior white elytral plaga extends transversely outward to the sides of the elytra.

Neoclytus Thoms.

The following species belongs to the *erythrocephalus* section of the genus, but is stouter and with much broader yellow fasciæ. At first I thought it might be the *balteatus* of LeConte, from Oregon, but it differs markedly in the fasciation of the pronotum and elytra:

Neoclytus provoanus n. sp.—Parallel, only moderately convex, ferruginous, the elytra darker, except at base, opaque, indistinctly punctulate, the vestiture minute and sparse, yellow, dense and appressed in the fasciæ, the pronotum with a very narrow looser apical fascia and one at base, extending beneath to the anterior coxæ and produced anteriorly to slight extent along the middle, the elytra with three fasciæ, broader in the female, the anterior acutely prolonged anteriorly for a short distance near the sides, the intermediate similarly transverse, enlarged slightly toward the suture, and the posterior well separated from the apex, anteriorly oblique and not extending quite to the sides, meso- and metasternal side-pieces and sides of the first ventral also with dense yellow vestiture; head deeply retracted and very strongly inclined, the eyes rather small; antennæ (♂) slender, two-fifths as long as the body, or (♀) a little shorter, with joints 3 and 4 narrow, elongate and equal, the remainder much thicker, closely joined, the last four each shorter than wide; prothorax as long as wide, parallel, with evenly arcuate sides, less arcuate in the male; surface even, with small and remote, uneven granules, which are arranged in short transverse and very uneven lines along the middle; scutellum semicircular, with dense appressed yellow pubescence; elytra fully two and one-half times as long as wide, about as wide as the prothorax, the sides parallel and nearly straight, each gradually ogivally pointed at apex; surface even; abdomen finely, closely castaneo-pubescent; legs slender, the first joint of the hind tarsi much longer than the remainder; terminal spines of the tibiæ long and slender. Length (♂♀) 9.0–13.0 mm.; width 2.5–3.6 mm. Utah (North Fork, Provo Cañon),—Spalding.

Easily recognizable by the three broad elytral fasciæ of dense yellow pubescence, by antennal structure and many other characters.

Most of the members of *Neoclytus* exhibit a very remarkable range in the size of the body, especially in such species as *luscus*, *caprœa* and *cordifer*.

Stenocorus Fabr.

Toxotus Lec.

In this genus *hesperus* Csy., I find to be the female of *pacificus; gilvicornis* Csy., may be regarded as a synonym of *aureatus* and *flaccidus* Csy., is a subspecies of *rufipennis*. With these emenda-

tions, the genus *Toxotus* becomes very satisfactory, so far as the species are concerned. The two following are interesting new species:

Stenocorus uteanus n. sp.—Rufous-brown, the head and prothorax darker and generally wholly black, feebly shining; head long, almost as wide as the prothorax, the eyes moderate, rather convex; tempora barely less prominent, arcuate, feebly so in the female; antennæ ochreous, five-sixths as long as the body (♂), about three-fifths (♀), the third joint very much shorter than the fourth, slightly longer than the fifth; surface rather finely, densely punctate; prothorax slightly shorter than wide; apex distinctly narrower than the base; submedian prominences strong but with rounded apices; surface deeply but obtusely, transversely impressed near apex and less broadly, more shallowly near base, and broadly and obtusely impressed medially; punctures moderate, deep and close-set; pubescence very short, rather loose, streaming outward slightly from the median line; color sometimes rufescent apically and basally; scutellum black, arcuato-triangular; elytra two and one-half to nearly three times (♂) as long as wide, at base two-thirds to three-fourths wider than the prothorax, the humeri prominent, the sides oblique in both sexes, feebly arcuate distally, the apices narrowly, somewhat obliquely truncate, the angles not prominent; surface finely, very closely punctate, sometimes also with larger but moderate scattered punctures, each with two fine obtuse vestigial discal lines; legs slender, the terminal tibial spurs rather long; basal joint of the hind tarsi very slightly longer than the remainder. Length (♂ ♀) 11.0–17.5 mm.; width 3.35–5.6 mm. Utah (Provo, Stockton and Eureka), —Spalding. Ten specimens.

In this species the sexual differences become comparatively slight, both in outline of the body and in the structure of the antennæ; the smallest specimen, as measured above, has rather more slender antennæ and shorter basal joint of the hind tarsi and may represent a varietal form; it is the only specimen from Eureka. *Uteanus* is larger, much more elongate and with a larger head than *subpinguis*.

Stenocorus plagiatus n. sp.—Smaller and more parallel, only moderately convex and somewhat shining, rufous throughout, except the head and prothorax, which are wholly black, also an elongate parallel black plaga on the elytra, involving the suture, about one-half the total width and sharply defined, its anterior end abruptly narrowed to the scutellum; sterna black, the abdomen bright red; vestiture very short, sparse and inconspicuous; head as wide as the prothorax, with notably prominent eyes, the tempora strongly converging and just visibly arcuate; punctures moderate, deep and slightly separated; antennæ (♀) testaceous, two-thirds as long as the body, the joints proportioned nearly as in the preceding but more slender; prothorax distinctly elongate, the impressions nearly as in the preceding; apex strongly arcuate, evidently narrower than the base; lateral tubercles broadly and obtusely triangular and slightly beyond the middle; scutellum broadly parabolic; elytra nearly three times as long as wide, almost one-half wider than the prothorax, the humeri prominent; sides thence straight and parallel, broadly rounded apically, the apices oblique and truncate, with minute triangular sutural tooth; legs slender, the basal joint of the hind tarsi as long as the remainder. Length (♀) 12.0 mm.; width 3.5 mm. California (Cisco, Placer Co.).

The side-pieces of the under surface are densely clothed with

decumbent golden pubescence, the sterna deep black, the abdomen rufous. This species is very distinct and I scarcely know where to place it, but it may come just before *lateralis* in the list.

Stenocorus morio n. sp.—Deep black throughout, the elytra without trace of pale margin; abdomen bright red (♂), black (♀); punctures fine and dense, a little stronger on the head; vestiture very short, close, obscure cinereous, a little looser on the prothorax but not evidently streaming from the middle; head fully as wide as the prothorax (♂), a very little narrower (♀), longer than wide, the eyes moderate and slightly prominent, more so in the male; tempora moderately convergent, very feebly arcuate, barely at all more so in the male; antennæ four-fifths as long as the body (♂), more slender and four-sevenths (♀), joints 3 and 5 subequal and much longer than 4; prothorax as long as wide (♀), a little longer (♂); apex moderately arcuate, narrower than the base, the lateral prominences obtusely triangular and slightly beyond the middle; impressions nearly as in the preceding species; surface feebly, linearly prominent near the median line in the male; elytra not quite three times as long as wide, almost one-half wider than the prothorax, the sides oblique, nearly straight from the only feebly prominent humeri to the very slight arcuation apically, a little less oblique in the female; apices narrowly and obliquely truncate, the angles obtuse; surface finely, closely punctate, feebly subrugulose, each with two or three very faint discal ridges; legs slender, the basal joint of the hind tarsi somewhat longer than the remainder. Length (♂ ♀) 13.0–15.0 mm.; width 3.7–4.4 mm. Utah (Stockton, Provo and Miner's Peak),—Spalding.

Allied to *lateralis* but larger, with less thick male antennæ and without the moderately prominent tempora of that species; it also lacks any indication of the narrow and sharply defined marginal yellow elytral stripe of *lateralis*, as well as the rather prominent sutural tooth of the oblique apical truncatures.

Stenocorus marginellus n. sp.—Deep black throughout, the marginal bead of the elytra pale in about basal half, the abdomen bright red; pubescence very minute, loose, dark gray and inconspicuous; head (♂) as wide as the prothorax, as wide as long, moderately and densely rugulose and punctulate; eyes prominent, minutely and feebly sinuate; tempora evenly converging from the outer limit of the eyes to the neck and straight; antennæ four-fifths as long as the body, slender, filiform, deep black, with grayish bloom, except basally, the third joint one-half longer than the fourth and evidently longer than the fifth; prothorax evidently longer than wide, the apex narrower than the base and strongly arcuate; lateral tubercles about at the middle, strongly elevated and triangular; apical constriction broadly concave, the subbasal narrow and deeper than usual; median line broadly and shallowly impressed; surface rather shining, the fine punctures slightly separated; scutellum broadly parabolic, with short but much coarser dark gray pubescence; elytra a little less than three times as long as wide, less than one-half wider than the prothorax, the sides nearly straight and very oblique, slightly arcuate toward apex, the humeri narrowly rounded; surface unevenly and moderately rugulose, minutely punctate and each with two very feeble raised lines; legs slender, the first joint of the hind tarsi as long as the remainder. Length (♂) 12.5 mm.; width 3.6 mm. California (Mt. Wilson),—Fenyes.

This species is related to *lateralis*, from north of San Francisco, but when compared with the male type of that species is seen to

be narrower, with much less of a marginal pale stripe on the elytra, and the converging tempora behind the eyes are straight and not strongly arcuate as they are in that species; the antennæ, also, are very much more slender and filiform, being notably thick in *lateralis*. The apices of the elytra are narrowly and obliquely truncate, with small, sharp and subspiniform inner angles.

Evodinus Lec.

The following species resembles *monticola* Rand., in general habitus, but has a longer prothorax and is differently ornamented in the basal regions of the elytra:

Evodinus carolinensis n. sp.—Moderately stout, the under surface shining and deep black (♂), the abdomen red (♀); head and prothorax black in both sexes, minutely punctate and with long, close and decumbent obscure brassy hairs, the elytra pale yellow, each with three marginal spots and the apex black, the anterior narrow, also with an oblong oblique discal spot near basal third, which sends anteriorly a slender ramus joining the external limit of a large and transversely oblong basal black spot, involving the scutellar region and rectilinear behind; suture finely blackish for some distance from the black apex, the surface dull, minutely, densely and evenly punctate; ornamentation similar in the sexes as in *monticola;* head a little narrower than the prothorax, with moderate prominent eyes, the tempora behind them short and strongly converging; antennæ (♂) slender, fully three-fifths as long as the body, deep black, the third joint much longer than the fourth but shorter than the fifth, or (♀) shorter, barely more than half as long as the body and pale testaceous throughout; prothorax longer than wide, much narrowed at apex beyond the strong, obtusely rounded lateral tubercles, which are beyond the middle; transverse impressions shallow, the median line broadly and distinctly impressed; scutellum longer than wide, the tip narrowly rounded; elytra almost two and one-half times as long as wide, fully one-half wider than the prothorax, the sides moderately oblique in both sexes and straight to the rather rapid rounding at apex, the apices narrowly and transversely truncate, with all the angles broadly rounded; humeri rather tumid; legs slender, somewhat more so and a little shorter in the female, deep black (♂), pale ferruginous (♀). Length (♂ ♀) 10.0–10.5 mm.; width 3.2–3.6 mm. North Carolina (summit of Black Mts.),—Beutenmüller.

Easily distinguishable from *monticola* by the characters mentioned; it is similar in the sexual differences pertaining to the antennæ and legs.

Brachysomida Csy.

Prof. Cockerell has sent me a female of *morata* Csy., taken at Washington, Colo., above timber line; it differs from the single male type in being a little larger and notably stouter and with slightly shorter antennæ; there seem to be no pronounced sexual differences in coloration. The following is a much larger species belonging to the same section of the genus.

Brachysomida aterrima n. sp.—Deep black throughout the body, legs and antennæ and moderately shining, virtually glabrous, there being only a few short fine hairs on the sterna; head rather small, scarcely three-fourths as wide as the prothorax, moderately but strongly, loosely punctate, sparsely along the median line; eyes rather small, convex, the tempora but feebly converging and arcuate; antennæ (♂) rather slender, filiform, about three-fourths as long as the body, the third joint two and a third times as long as wide, just visibly shorter than the fourth, the fifth nearly one-half longer than the third; prothorax two-fifths wider than long, the apex barely more than two-thirds as wide as the base and feebly arcuate, widest and with strongly angulate sides just beyond the middle, the sides thence converging and sinuate to the apex and feebly converging and broadly arcuate to the base; surface smoother near basal and outer third and rather broadly, deeply canaliculate along the median line centrally, feebly impressed transversely near apex but scarcely at all basally; punctures moderate but deep, even and slightly separated; scutellum narrow, much longer than wide, subparallel, with broadly rounded apex, very finely, loosely punctate; elytra barely twice as long as wide, nearly two-thirds wider than the prothorax, the sides parallel and almost straight, gradually rounding behind, becoming more strongly so to the suture; humeri rounded; surface moderately and very deeply, loosely punctate, gradually minutely so distad, very narrowly deplanate along the rounding part of the edge; legs not very long or slender; first joint of the hind tarsi equal to the next two. Length (♂) 9.7 mm.; width 3.75 mm. Canada (the locality unrecorded).

The type is labeled *tumida*, but it bears no special resemblance to that species. It may be placed near *atra* Lec., but is larger and stouter, with much more sharply angulate sides of the prothorax and finer, closer punctuation throughout.

The form described by me as *francisca* can be considered a subspecies of *californica; proxima* is somewhat stouter and with rather longer antennæ and I cannot tell its exact status at present.

Acmæops Lec.

The following species comes near *coloradensis* Csy., but is more abbreviated and also differs in the nature of the scutellum:

Acmæops scutellata n. sp.—Body and legs deep black in the female, shining, the pubescence short and rather sparse, pale gray; head scarcely longer than wide, distinctly narrower than the prothorax, the eyes small but rather prominent, the tempora converging and arcuate to the neck; surface very finely, rather sparsely punctate; antennal tubercles separated by a short narrow incised line; palpi black; antennæ slender and filiform, about half as long as the body, black, gradually a little paler distally, the fourth joint very slightly shorter than the third and more distinctly shorter than the fifth; prothorax conical, just visibly longer than wide, the sides arcuate, feebly sinuate thence to apex and base; apex two-thirds as wide as the base; surface obtusely but rather strongly elevated at each side of the somewhat broad shallow median concavity, very finely, sparsely punctate, the median line narrowly smooth; apical constriction deep, the basal less so; scutellum small, triangular, strongly tumid, with fine flat edges; elytra twice as long as wide, nearly one-half wider than the prothorax, the sides straight and moderately oblique to the rather rapid apical arcuation, the apices narrowly and somewhat obliquely truncate; humeri rounded, feebly tumid;

surface somewhat impressed suturally in about median half, the punctures moderate and well separated, gradually very fine apically; legs slender, the hind femora slightly pallid at base, the hind tarsi very slender, the basal joint subequal to the remainder. Length (♀) 9.2 mm.; width 3.1 mm. Idaho (Priest Lake), —C. V. Piper.

This distinct species may be known readily by the uniform black color, rather broad outline and small tumid scutellum; in *coloradensis* (♀) the scutellum is much longer, with sinuate sides and rounded apex.

Leptacmæops Csy.

The species of this genus are generally narrower and more elongate than in *Acmæops* and there is even a more marked dichromatism among the species, which are more numerous. The two following seem to be distinctly isolated:

Leptacmæops suturalis n. sp.—Elongate, convex, unusually large in size, black, the anterior parts dull from density of sculpture, the elytra pale tawny yellow and shining, with a narrow black sutural vitta extending from base and gradually attenuated near the apex, the legs pale, the femora, except the anterior, feebly infuscate distally in the female; pubescence pale but minute, sparse and inconspicuous; head as wide as the prothorax (♂), narrower (♀); eyes moderate and but slightly prominent, the tempora feebly converging and broadly arcuate to the base; surface finely, deeply and densely, subrugosely punctate, with a fine impressed median line; antennæ slender, pale in both sexes, four-fifths as long as the body (♂), but little shorter (♀), the third joint longer than the fourth but shorter than the fifth; prothorax as long as wide or barely longer, the sides somewhat prominently arcuate just beyond the middle, feebly sinuate thence to apex and obsoletely so to base; surface rather widely, shallowly impressed along the middle, flatter along the base, the apex tubulate; punctures small but distinct, close-set but not very dense; median line impunctate posteriad; scutellum slightly elongate, with converging sides and rounded apex; elytra not quite three times as long as wide, one-half to three-fifths wider than the prothorax, the sides moderately oblique in both sexes, straight to the gradual apical arcuation, the apices broadly, transversely rounded; punctures coarse, deep, moderately separated, gradually less coarse apically; under surface loosely pubescent, the metepisterna very densely clothed with decumbent whitish hairs; legs slender. Length (♂♀) 10.3–12.5 mm.; width 2.75–3.8 mm. California (locality unrecorded).

This species may be placed near *punctiventris*, being similarly colored, but the outline is more elongate, the abdomen less densely punctured and the prothorax much less abbreviated; in both species the elytral humeri are rounded and longitudinally tumid.

Leptacmæops stolida n. sp.—A little smaller and narrower than the preceding, black, the elytra wholly tawny yellow; legs black, the femora abruptly pale in less than basal half, the anterior nearly to the apex; pubescence pale, close, coarser and almost concealing the sculpture on the anterior parts; lustre dull, the elytra slightly shining; head rather large, quadrate, wider than long, not quite as wide as the prothorax; tempora less prominent, straight and parallel,

then broadly rounding to the neck; surface almost even, finely and very densely punctate; antennæ (♂) very slender, filiform, three-fourths as long as the body, piceous-black, the two basal joints rufous, the third slightly longer than the fourth and correspondingly shorter than the fifth; prothorax not quite as long as wide, the sides strongly, evenly arcuate, deeply constricted and transversely impressed at base, subtubulate and arcuate at apex; surface strongly convex, finely impressed along the middle, except at base and apex; punctures fine and very dense; scutellum rather small, narrowly parabolic; elytra about three times as long as wide, three-sevenths wider than the prothorax, the sides distinctly oblique, nearly straight, feebly and very gradually arcuate posteriad, the apices rapidly transversely rounded; humeri nearly smooth, tumid; surface somewhat strongly and closely punctate, gradually very finely and densely toward apex; met-episterna more densely albido-pubescent; legs stouter than usual and not quite so long, the first joint of the hind tarsi much shorter than the remainder. Length (♂) 10.5 mm.; width 3.0 mm. Nevada (Las Vegas),—Spalding.

A very distinct species that may be placed last in the series, not being closely allied to any other at present known.

Typocerus Lec.

There are a considerable number of species composing this very interesting genus and the following deserves to be recorded as one of the allies of *sinuatus* Newm., but it is much larger:

Typocerus arapahoe n. sp.—Rather stout, convex and moderately shining, black, the elytra pale at base, each also in a large median area not quite attaining the suture and inclosing a rounded black spot adjoining the outer margin, also in an obliquely oval discal spot near the apex and internally prolonged anteriorly, rather acutely and for a very short distance; pubescence gray, loose on the elytra, longer, denser and very much more conspicuous on the pronotum, short, even and dense throughout the under surface, not denser on the met-episterna; head three-fifths as wide as the prothorax, with convex eyes and moderate vestiture, broadly sinuate and abruptly declivious at base, the very short tempora with tuft of long dense pubescence; antennæ moderately slender, from a little more to somewhat less than half as long as the body, black, gradually more brownish basally, the outer joints rapidly becoming short, 3–5 long; prothorax wider than long, the sides arcuate, gradually straighter and feebly divergent basally; surface even, deeply and moderately, rather loosely punctate; scutellum triangular, longer than wide, with blunt point; elytra nearly two and one-half times as long as wide, only a fifth or sixth wider than the prothorax, the sides nearly straight, only slightly oblique, gradually arcuate distally, the apices narrowly, somewhat obliquely and not very distinctly truncate; humeri very feebly, longitudinally tumid; surface with moderate but deep, rather loose punctures, gradually small and closer distally; legs slender, dark brown, the tarsi long. Length to elytral tips 12.0–12.7 mm.; width 4.0–4.6 mm. Colorado (Akron—Shantz and Golden—on *Cirsium*). Three specimens.

The sex of the specimens at hand is not evident. This species, besides being larger and stouter than *sinuatus*, differs markedly in the elytral maculation, the spots never being united to form an elongate black area with sinuous sides, as is generally the case in that species. The *Stenura octonotata* of Haldeman, from Alabama,

is narrower and the elytra are said to have four black maculæ "the third common." In *arapahoe* it is the first or subbasal black maculation which extends unbrokenly across the elytra, the third black spots being fused with the narrow black suture. Haldeman in describing four black spots, must have included the black apex, which is afterward mentioned separately in the description.

Strangalia Serv.

In this genus the species are rather numerous and well defined, though in certain parts as for instance *elegans* and *subhamata*, they seem to be more or less sexually diversified in ornamentation, so that a study of them in the absence of types is often a difficult matter. Large series of *idahoensis* Csy., and *obliterata* Hald., as well as a number of species of *Xestoleptura*, have recently been given me by Prof. C. V. Piper, who collected them in the Priest Lake region of Idaho.

Strangalia perductor Walker, is nothing more than a synonym of *obliterata* Hald.

The following species is apparently undescribed:

Strangalia serricornis n. sp.—Moderately narrow, more subparallel than usual, black, the elytra red-brown, with somewhat dusky apices; pubescence sparse, rather short, longer on the pronotum; head four-fifths as wide as the prothorax, subquadrate, wider than long, the eyes convex, rather prominent; tempora less prominent, nearly parallel, the basal angles strongly rounded; surface even, very densely punctate, the antennal tubercles separated by a rather narrow deep line; antennæ (♂) long, nearly four-fifths as long as the body, rather slender, the joints moderately serrate at apex externally, the third joint almost one-half longer than the fourth, barely more than two-thirds as long as the fifth, the eleventh joint somewhat constricted in distal third, or (♀), nearly similar in color and structure, but shorter, a little more than half as long as the body; prothorax slightly longer (♂) or shorter (♀) than wide, the sides parallel, gradually arcuate anteriorly to the fine apical margin; surface nearly even, moderately but deeply and very closely punctate, the basal margin flattened and with coarse sparse punctures; scutellum sharply angulate; elytra between two and one-half and three times as long as wide, only about a fourth wider than the prothorax, the sides very moderately oblique and very nearly though not quite straight, gradually a little more arcuate distally, the apices narrowly, obliquely and feebly sinuate, with small and moderate angles; surface deeply, moderately and rather closely punctate, a little less strongly toward apex; legs moderately long and slender. Length (♂ ♀) 12.0–13.5 mm.; width 3.6.–40 mm. Michigan (Marquette),—Sherman. Eight specimens.

Not closely allied to any other species known to me. It is not strictly congeneric with *obliterata*, *propinqua* and others of similar habitus, but constitutes with *Brachyleptura circumdata* Oliv., and others placed in that genus, a distinct generic or subgeneric group, to which the following also pertains:

Strangalia apicata n. sp.—Much smaller and narrower than the preceding, black, the legs and antennæ also deep black; head and prothorax moderately but very densely punctate and opaculate, the elytra tawny-yellow, moderately shining, the apices briefly and abruptly black; pubescence short, sparse and inconspicuous on the elytra, longer and coarser, more shaggy and distinct on the anterior parts; head as wide as the prothorax, about as wide as long, the eyes moderately large and prominent; tempora less prominent, converging and feebly arcuate; antennæ in the type slender, not at all serrulate, the third joint a third longer than the fourth and just visibly longer than the fifth, the eleventh gradually pointed; prothorax distinctly elongate, parallel, feebly and minutely subprominent just beyond the middle, the sides slightly oblique and straight to the apex; basal angles laterally prominent; base broadly, shallowly grooved, the apex somewhat more distinctly; scutellum moderate, narrowly triangular; elytra two and two fifths times as long as wide, two-fifths wider than the prothorax, the sides distinctly oblique, straight, only very feebly arcuate at the extreme apex, the apices rather broadly, somewhat obliquely recto-truncate; surface rather coarsely, deeply and closely punctate, gradually less coarsely distally; legs rather long, very slender. Length (♂) 9.0 mm.; width 2.5 mm. Colorado and British Columbia. Two specimens.

Allied somewhat to *lacustris*, but smaller, narrower and with simple, more slender and not feebly serrulate antennæ such as are seen in the preceding species and the male of *lacustris;* it is related to *sanguinea*, but is more elongate and with decidedly longer antennæ.

This and the preceding species belong to a group intermediate in character between *Strangalia* and *Brachyleptura*, which may be named **Anastrangalia** (n. subg.) and attached for the present to *Strangalia*. The group includes these two species, as well as *lacustris*, *haldemani*, *boulderensis* and *subquadrata* Csy., *circumdata* Oliv., *sanguinea* and *lætifica* Lec., and *rubrica* Say, all now included under *Brachyleptura* in the lists, with *sanguinea* as the type, but they really have very little resemblance to the short broad forms such as *vagans* and *dehiscens*, which constitute, with some others, the typical genus *Brachyleptura*.

The species *Anastrangalia lacustris* Csy., if my four Marquette specimens really all belong to the species, presents some anomalous sexual characters. The two male types are much larger than the other two specimens, which are females, and have very much longer and serrulate antennæ, these being notably short and simple in the two small females, where also the elytra are very much shorter.

The species *cribripennis* Lec., *canadensis* Fab., and *ebena* Leng, with some others having entirely red elytra, were also included under *Brachyleptura* in my former work, but they properly form a subgenus of the latter, which may be called **Stictoleptura** (n. subg.), having as its type *cribripennis* Lec. The following may also be included under this subgenus:

Stictoleptura cribripennis ssp. **divisa** nov.—Smaller than *cribripennis*, the elytral punctures coarser than in *canadensis* but not so large as in *cribripennis;* outline rather narrow, deep black and shining, the elytra bright red in basal third, divided along the suture by a triangular black extension half way to the scutellum; pubescence long, sparse, erect and bristling on the anterior parts, almost wanting on the elytra; head very densely punctate, with angulate tempora and large prominent eyes; antennæ (♂) fully as long as the body, serrate, the joints 3–5 and 8 black, pale flavate at base, 6 wholly black like the rest of the antennæ, the eleventh small and fusoid; prothorax as long as wide, the broadly arcuate sides converging to the deep apical sulcus; base vertically descending to the flat margin; punctures coarse, rather unevenly close, with a smooth median line posteriad; elytra two and one-half times as long as wide, with straight oblique sides, the apices sinuate, with long external tooth; punctures coarse and deep, rather unevenly separated; legs slender. Length (♂) 11.5–12.8 mm.; width 3.5–4.0 mm. Idaho (Priest Lake),—Piper. Three specimens.

Differs from the male of *cribripennis* principally in the less coarse elytral punctures and less developed red basal area of the elytra.

Cosmosalia Csy.

The following is a rather evident subspecies of *auripilis* Lec., but still more densely clothed with brighter golden pubescence:

Cosmosalia auripilis ssp **densepilosa** nov.—Not very elongate, nearly black, clothed with short golden hairs, extremely dense on the elytra, still denser, finer, more decumbent and with a brighter sheen on the abdomen; head rather small, with short and converging, densely tufted tempora; antennæ (♀) black throughout, the fourth joint but little shorter than the third and fifth; prothorax nearly as in *auripilis;* elytra shorter, only a little more than twice as long as wide, otherwise almost as in *auripilis*, except that they are much more densely clothed with coarser and still more aureate pubescence. Length (♀) 15.0 mm.; width 5.0 mm. Utah (North Fork, Provo Cañon),—Spalding.

Allied to *auripilis* and *aureola*, but more abbreviated, especially than the first and with denser pubescence than in either.

Cercolia Csy.

As in many other groups, the species of this genus have an almost identical scheme of coloration, but in the case of *minnesotana* Csy., there are certain male sexual characters which seem to indicate a true specific difference from the type, *proxima* of Say. In the present instance, although the body differs greatly in its much larger size, I have at present only the female, but am inclined to think that it also is specifically valid.

Cercolia kempiana n. sp.—Body broad, black, rather shining, the elytra tawny-yellow, the black apex ascending slightly along the sides as usual; pubescence rather abundant but not at all concealing the sculpture, inclined on the elytra, slightly longer and more erect on the anterior parts; head about half as wide as the prothorax, strongly, rather densely punctate, with a fine incised

median line not attaining the base; eyes large, very prominent; tempora very short, extremely convergent; antennæ (♀) long, three-fourths as long as the body, the third joint slightly shorter than the fifth, two-fifths longer than the fourth, the eleventh longer than the tenth; prothorax fully a third wider than long, the apex narrowly and deeply constricted, four-sevenths as wide as the base; sides prominent just behind the middle, thence oblique and nearly straight to apex and base; surface feebly, broadly impressed along the base and slightly toward the median line, which is narrow and smooth, not extending to base and very fine anteriad; punctures strong and very dense; elytra but little over twice as long as wide, a third wider than the prothorax, the sides notably oblique and nearly straight to the feeble apical arcuation, the apices narrowly, subobliquely sinuato-truncate; surface even, rather strongly, closely punctate, very gradually finely so behind; pygidium large, triangular, narrowly rounded at apex, rather finely, sparsely punctate; legs somewhat short, the femora thick, rather finely punctate, with moderate inclined pubescence, very short on the tibiæ; basal joint of the hind tarsi much shorter than the remainder. Length (♀) to end of elytra 18.8 mm.; width 6.4 mm. New York (Lake George),—Prof. J. F. Kemp.

Comparing this conspicuous type with the female of *proxima*, it is seen at once to differ in its much larger size, more transverse and more laterally prominent prothorax, more prominent eyes and much longer antennæ, still rather thicker femora and in the narrower and shallower, broadly impressed channel along each side of the pygidium.

Judolia Muls.

The species of this genus are broader and more abbreviated as a rule than is usual in this part of the subfamily, and are rather numerous. The following species are allied somewhat to *trajecta:*

Judolia vivarium n. sp.—Subparallel, black, rather shining, the legs feebly picescent; elytra yellow, with the suture, the base briefly, the apex, a rather broad entire uneven fascia near basal fourth and two large rounded black spots just behind the middle and amalgamated with the suture, black; vestiture rather short, not concealing the sculpture; head rather small, three-fifths as wide as the prothorax, even, densely punctate, the eyes moderate, not very prominent, the tempora short, arcuate and with longer and closer hairs; antennæ (♀) thick, barely more than half as long as the body, black, more brownish basally, the third joint longer than the more obconic fifth and much longer than the cylindric fourth; prothorax distinctly wider than long, obtusely prominent at the sides beyond the middle, thence oblique to the apex, sinuato-parallel to the base, which is lobed medially, thence straight to each side; surface even, rather strongly and closely but not densely punctate, with a short smooth median line; elytra slightly less than twice as long as wide, two-fifths wider than the prothorax, the sides straight and feebly oblique to the rather rapid apical arcuation, the apices evenly and rather narrowly rounded; punctures moderate, well separated, finer but still sparse apically; legs rather short but slender, the basal joint of the hind tarsi much shorter than the remainder. Length (♀) 7.8 mm.; width 3.0 mm. Wyoming (Yellowstone Park).

Allied to *trajecta* but smaller and notably narrower, differing in the smaller, more parallel prothorax, which is much more feebly

lobed at base, the latter with the lateral sinuations barely traceable and the hind angles not laterally produced as they are in that species; the scutellum, also, is smaller and the elytral suture black throughout. In the type the left side of the prothorax has a deformation, the obtuse prominence of the side, just beyond the middle, being an acute spiniform tooth, wholly unlike the prominence of the right side.

Judolia seminigra n. sp.—Suboblong, deep black throughout, the elytra each with a yellow spot very near the base, nearer the suture than the margin, a fine uneven biangulate fascia at two-fifths and a narrow uneven fascia rather beyond two-thirds, both of the latter narrowly interrupted at the suture; pubescence short and inconspicuous, more distinct on the pronotum; head small, nearly two-thirds as wide as the prothorax, finely and densely punctate, the eyes moderate in size and convexity, the tempora short, strongly converging and more densely pubescent; antennæ (♂) long, very slender, the first six joints alone remaining in the type, but together they are three-sevenths the entire length of the body, the third joint much shorter than the fifth and longer than the fourth; prothorax convex, but little wider than long, the sides beyond the middle feebly and obtusely prominent when viewed sublaterally, parallel from above, oblique in apical third; surface very moderately but densely punctate, with very narrow smooth median line behind the middle; basal lobe broadly angulate; scutellum narrow, deep-set; elytra about twice as long as wide, three-sevenths wider than the prothorax, the sides and apices nearly as in the preceding; punctures moderate but sharply marked and rather well separated; legs not very long but slender. Length (♂) 9.2 mm.; width 3.7 mm. Idaho (Priest Lake),—Piper.

Probably belongs near the preceding species and *trajecta* but almost entirely black, the transverse yellow fasciæ of those species very narrow and irregular. The antennæ are very different, being much more slender, elongate and filiform; the eleventh joint in the male type of *trajecta* is unusually long and the antennæ throughout are nearly twice as thick as in *seminigra*.

Judolia deceptiva n. sp.—Form, coloration and elytral maculation almost exactly as in *convexa* and *pacifica*, but with very much finer and denser elytral punctures; head nearly as in *pacifica*, the tempora much less prominent than in *convexa*, the tufted pubescence not long as in that species but much shorter; antennæ (♂) shorter than in *pacifica* and more slender, filiform, with subsimilar relationship of the joints; prothorax nearly as in those species but with the punctures finer, though not quite so dense, the pubescence far less long and bristling than it is in *convexa* and *pacifica;* scutellum nearly as in *pacifica* but rather less obtusely rounded, longer and more strongly rounded than in *convexa;* elytra without the short, black and abruptly limited basal fascia involving the base of the scutellum seen in those species, but with black vertical basal wall, prolonged laterally over the humeral callus in a manner not suggested in either of them; remaining maculation similar; punctures very fine and close; pubescence short though much more abundant; legs nearly similar. Length (♂) 10.0 mm.; width 3.9 mm. Massachusetts (Framingham),—C. A. Frost.

We have here a singular mutual resemblance in what are indubitably different species.

Judolia longior n. sp.—More elongate, with more elongate cuneiform elytra, black, the abdomen rufous; elytra yellow, with a small biemarginate black spot very close to the outer margin at basal fourth, a large rounded spot just behind the middle and broadly adjoining the margin, extending to inner fourth, also solidly black in a little more than apical fourth; head small, three-fifths as wide as the prothorax, very finely, closely punctate, the tempora short, evenly arcuate and moderately tufted; antennæ (♂) long and very slender, deep black, the only six joints in the type about half the length of the body, the joints beyond the second all much elongated; prothorax slightly wider than long, the sides subparallel basally, diverging slightly to the prominent basal angles, broadly arcuate and converging apically; scutellum a rather broadly truncated triangle; elytra nearly two and a third times as long as wide, the sides straight and more oblique than in any other species, the much narrowed apices very narrowly rounded; surface finely, evenly punctate, the punctures not quite so minute and a little more separated than in *deceptiva*. Length (♂) 12.0 mm.; width 4.2 mm. Pennsylvania (Carlisle Jc.),—Champlain.

Easily separable from any other species known to me by the more elongate and more strongly cuneate elytra, unusually long slender antennæ and red abdomen; it is allied to *cordifera* Oliv., but is more elongate with a brighter red abdomen in the male and much longer antennæ than in that sex of *cordifera:* the male specimens of *cordifera*, with dull red abdomen, were named *lunaris* by Haldeman, but this name is a pure synonym of *cordifera*.

Judolia minuta n. sp.—Very small, oblong, moderately convex, slightly shining, black, the elytra yellow in more than basal third, except along the entirely black suture, the yellow area reaching the side margin for a short distance at basal third, this yellow area inclosing an oval black spot, also yellow in a subquadrate spot near apical third, attaining the margin and also in a very small spot near the apex; legs piceous, the femora brighter red; head small, with short converging tempora; front with deep close punctures; antennæ slender, dark brown, two-thirds as long as the body in the female, the fourth joint a little shorter than the third or fifth; prothorax barely wider than long, parallel, the sides rounded apically, the basal angles finely prominent laterally; pubescence rather long and close but not dense; punctures small, deep and dense; elytra three-fourths longer than wide, two-fifths wider than the prothorax, the sides parallel and straight, rounding behind, the apices evenly rounded; surface with the rather long coarse pale vestiture, somewhat less dense than that of the pronotum; punctures moderate and distinctly separated; under surface with very short gray vestiture; legs slender, moderate in length. Length (♀) 6.0 mm.; width 2.0 mm. Texas. A single specimen.

This species is related to *sexspilota* but is still smaller, with distinctly more black on the elytra, the median spot of that species extending inward as a broad fascia amalgamated with the broader black elytral suture; the head is much smaller than in any of a large series of *sexspilota* in my collection.

Of *Judolia instabilis* Hald., I have a specimen found in Yellowstone Park, which is completely black, without trace of yellow marking on the elytra.

Xestoleptura Csy.

This is a peculiar genus in many ways, and the species are often difficult to discriminate. The male of *tibialis* Lec., differs greatly from the female, not only in the narrower outline and much longer antennæ, but in having the black maculation of the elytra often wanting, except the apical area which includes the yellow rounded spot; it is not rare from Lake Superior to northern Idaho. *Crassipes* Lec., is abundant from Sta. Cruz, Calif., to northern Idaho; *xanthogaster* Lec. and *shastana* Csy., are synonyms of this species; it is often of very small size and rather slender form. The following is distinct in elytral maculation and other characters:

Xestoleptura pictipennis n. sp.—Moderately shining, the anterior parts duller from density of punctuation, black, the elytra pale whitish-yellow, each with a subduplex and rather small black spot near the margin at basal fourth and another, larger one, triangular, in the same range and nearer the suture; it is much reduced in the male; also, at the middle, there is a rather irregular marginal spot, extending somewhat more than half way to the suture; near apical fourth there is a broad fascia, entire, irregular at its anterior margin, suturally interrupted in the male; apex briefly black, joining the fascia narrowly at the side margin; legs slender, black, the tibiæ yellow, black at apex; hind tarsi pale, with the last two joints black (♀), or entirely black (♂); pubescence loose, moderate in length, much longer on the pronotum (♂) but scarcely so (♀); head subequal in width to the prothorax (♂) or narrower (♀); antennæ black throughout in both sexes, nearly three-fourths as long as the body (♂), a little more than half (♀), the fourth joint distinctly shorter than third or fifth, the eleventh feebly constricted in about apical third; prothorax about as long as wide, the sides parallel, moderately oblique anteriorly; base strongly impressed, very deeply bisinuate; surface with moderate but very dense punctures, coarser on the depressed base; apex very moderately constricted above; scutellum acutely triangular; elytra two and one-half times as long as wide, cuneiform, with oblique sides (♂), subparallel (♀); apices rounded (♀), feebly sinuato-truncate (♂). Length (♂♀) 10.5–12.4 mm.; width 3.7–4.4 mm. Idaho (Priest Lake),—C. V. Piper.

This species does not seem to be at all closely allied to any other at present known; some of the sexual differences are rather remarkable.

Euryptera Serv.

The following species is noticeably larger and broader than *lateralis* and more uniformly colored, the elytral humeri of the latter always being of an orange tint.

Euryptera subintegra n. sp.—Subparallel, very moderately convex, deep black, the legs and antennæ black, the first joint of the hind tarsi flavate at base; head four-sevenths as wide as the prothorax, with very prominent eyes and short retracted tempora; surface with some short orange lines toward base; antennæ (♀) rather stout, the fifth joint barely twice as long as wide, the rest of the antennæ missing in the type; prothorax between a third and fourth wider than

long, the sides converging feebly and unequally arcuate; apex not beaded or constricted, rather less than two-thirds as wide as the base; surface minutely, densely punctate and opaque, deep black, pale orange in rather more than outer third; scutellum small; elytra two and a third times as long as wide, three-fifths wider than the prothorax, distinctly wider at apical fifth than at base, the sides nearly straight, rapidly rounding at tip; surface with short coarse erect black pubescence, deeply, moderately and very closely punctate; first joint of the hind tarsi long and very slender. Length (♀) 9.0 mm.; width 2.5 mm. North Carolina (Southern Pines),—Manee.

Allied closely to *lateralis* Oliv., and similar in color and sculpture, except that in the latter the elytral orange color forms an oblique humeral spot, while in *subintegra* the orange of the humeri is confined to the lower margin and is not at all visible from above; the body is a little larger, the head smaller, the tempora less obsolete, the black vitta of the pronotum relatively broader, the sides of the elytra arcuate for a greater distance from the apex and the antennæ are not so long and are thicker.

Moneilema Say

It is quite without doubt that this genus will prove to be a large one, and, although the species are uniformly black, there is great diversity in sculpture and in the sparse vestiture. The following seven species are remarkably distinct in general habitus and sculpture. They belong to the subgenus *Collapteryx:*

Moneilema shantzi n. sp.—Rather ventricose, glabrous, moderately shining; head very feebly impressed between the antennæ, sparsely punctured at each side of the front, minutely and sparsely so medially; antennæ (♂) more slender than usual, two-thirds as long as the body, the scape smooth and unarmed; joints 3–8 annulate with ashy hairs, in three-fourths on the third but in a small area at base on the eighth, the eleventh joint slender but with the tip very obtuse; prothorax transverse, two-fifths wider than long, barely visibly narrower at base than at apex; sides subparallel, constricted at base and rapidly contracted and subparallel behind a very minute sharp triangular tooth, which is barely beyond basal third; surface very coarsely, closely punctate, more sparsely antero-laterally; median line partially incised; scutellum not very broad; elytra oblong-oval, two-thirds longer than wide, two-thirds wider than the prothorax, very moderately convex above, abruptly descending at the sides, feebly impressed along each side of the suture; sides slightly serrulate basally; surface less shining and nearly smooth behind, strongly and rather closely asperato-punctate basally, more especially at the sides toward base. Length (♂) 18.0 mm.; width 7.4 mm. Utah (southern),—H. L. Shantz.

A remarkably distinct species. The legs in the male are unusually slender, the femora rather strongly clavate in about apical half. The abdomen is extremely minutely, closely sculptured, smooth, opaculate, with the hind margins of the segments polished.

Moneilema plectralis n. sp.—Ventricose, shining and glabrous throughout;

head distinctly impressed between the antennæ, the front with moderate sparse punctures toward the sides, the general surface with extremely minute and distinctly separated punctules, without obvious punctures; antennæ three-fourths as long as the body, gradually tapering, only moderately thick basally, the scape smooth, with very few small remote punctures, not armed; fourth joint alone cinereous in about basal half; prothorax slightly wider than long, subparallel, a little narrower behind than beyond the long acute and sharply triangular spine at each side, which is slightly curved and barely behind the middle, the sides at apex slightly arcuate; surface shining, with a few very remote and scattered, moderately coarse punctures, becoming unevenly coarser and denser along the basal margin; elytra oblong-oval, about three-fifths longer than wide and three-fifths wider than the prothorax, the sides more rounded at base and apex; surface moderately convex, very feebly subrugulose, especially toward apex, coarsely, sparsely punctured in about basal third, the flanks abruptly descending, very sparsely punctate, nearly smooth in about apical half; legs thick, the femora (♂) gradually thicker and claviform as usual; abdomen smooth and impunctate, the segments individually rather convex. Length (♂) 21.5 mm.; width 8.5 mm. Arizona (near Tuçson),—Tucker.

This is also an isolated species that seems out of place near *annulatum*, on account of the long conspicuous thoracic spines; it may be listed at present just before *gigas*.

Moneilema obesa n. sp.—Stout, very convex, suboval and very feebly ventricose, strongly shining; head relatively much smaller and the prothorax larger than in the preceding; front with a sparse mixture of moderate and of very fine punctures, feebly impressed between the antennæ, the clypeal suture impressed, abbreviated at the sides somewhat as in *plectralis* but longer; antennæ (♂) with the scape simple, rather thick, tapering, all together somewhat more than two-thirds as long as the body, the third joint very briefly cinereous at base, the fourth to the middle, the others without cinereous pubescence; prothorax large, nearly a fourth wider than long, the sides feebly subangulate, with a short but acute spine, flexed upwardly, just behind the middle and not quite as long as the thickness of the second antennal joint; base and apex feebly, subevenly arcuate, the apex slightly the narrower; surface with a broadly impressed short median line near basal third; punctures very small and evenly sparse throughout; irregularly scattered along the base there are numerous,coarse, deep and perforate punctures; scutellum parabolic, twice as wide as long; elytra two-thirds longer than wide, obtusely oval, only about a fourth wider than the prothorax, the arcuate sides a little more rounded at base; flanks abruptly descending and flat; entire surface with shallow anastomosing lines, also very coarsely, sparsely punctate in about basal half, more densely throughout the rather prominent line demarcating the flanks, which are coarsely and sparsely punctate; abdomen alutaceous, impunctate, the segments all slightly convex at apex; legs (♂) thick, the femora as usual. Length (♂) 23.0 mm.; width 9.3 mm. Texas (locality unrecorded). One specimen.

This is a species which can be recognized easily from the description; in some respects it resembles *crassa* Lec., but the acute spines of the prothorax will distinguish it without doubt.

Moneilema lateralis n. sp.—Much elongated and rather narrow, strongly convex, deep black and glabrous, the prothorax feebly alutaceous and the shining elytra with waxy lustre; front minutely and sparsely punctulate throughout,

coarsely and loosely punctate, less coarsely and more closely in a wide parallel median stripe, the clypeal suture entire, the median part broadly expanded and subfoveiform; antennæ moderate, the fourth joint feebly banded with cinereous barely behind the middle; scape simple, with strong but well-separated punctures; prothorax slightly wider than long, not armed or tuberculate at the sides, which are slightly retracted in basal third and rapidly narrowed at apex, the latter almost equal to the base; surface loosely and subequally punctured throughout, rather less strongly behind the middle, becoming coarsely so gradually toward base; a single close subbasal line is more evident medially; there is also a broad and submedian punctureless line; scutellum broadly subangulate, canaliculate along the middle; elytra fully four-fifths longer than wide, nearly one-half wider than the prothorax, regularly oblong-oval and strongly convex, very obsoletely subrugose, more longitudinally toward apex, having coarse and well-separated punctures along the obtuse line defining the vertical flanks, these punctures rapidly becoming fine and sparse internally to the suture; apical third virtually impunctate; abdomen convex and coarsely punctate; legs not very stout, strongly and rather closely punctate; first hind tarsal joint with some spongy pubescence apically, the second and third so throughout, finely divided. Length without protruded abdomen (♀) 24.0 mm.; width 9.0 mm. Lower California (El Taste).

Differs from any other of the *subrugosa* section in the peculiar lateral development of the elytral punctuation and in the sculpture of the front; the protrusion of the abdomen in the type amounts to 3.4 mm.

Moneilema rugosissima n. sp.—Elongate, very convex, only slightly ventricose; surface strongly shining, the unusually smooth pronotum somewhat alutaceous; head large, rather deeply but obtusely impressed between the antennal tubercles; front with coarsely impressed, even and well-spaced punctures throughout, with a small central area having small punctures, the entire surface also with minute sparse punctules; antennæ (♂) rather thick, gradually tapering, barely two-thirds as long as the body, the scape rather long, thick, even, not at all armed, truncate and widest at apex, with somewhat coarse and sparse, impressed punctures, the fourth joint alone with cinereous pubescence in a short imperfect submedial band; prothorax subcylindric, about as long as wide, the sides parallel and subevenly arcuate, without trace of visible tubercle or spine; surface finely, sparsely punctate, with a sparse admixture of rather coarse and deep punctures apically and more broadly toward base, having coarse punctures, gradually becoming very coarse and unevenly close basally; scutellum more than three times as wide as long, obtusely parabolic; elytra long, fully three-fourths longer than wide, regularly oblong-oval, very convex, the flanks not so abruptly descending; entire surface in about basal three-fifths—a little more on the upper line of the flanks—very coarsely, deeply and vermicularly rugose, with moderately coarse, deep punctures sparsely scattered over the rugose surface, apically strongly but more obtusely rugose, the rugæ becoming parallel toward tip; abdomen smooth, duller, with moderately strong and sparse punctures; legs thick, rather long, somewhat coarsely, loosely punctate. Length (♂) 28.0 mm.; width 9.6 mm. Lower California (Sta. Rosa). One specimen.

The large size, remarkable rugosity, unarmed prothorax and other structures as mentioned, show that this species is not even remotely related to any other now known.

A female from the vicinity of Sta. Rosa, which comes nearer to

satisfying the *subrugosa* description of Bland than anything else known to me, is much smaller and narrower than *rugosissima*, the elytra with very coarse and well-defined punctures and feeble longitudinal rugosity toward apex, a form of sculpture wholly different from the rugosity and scattered smaller punctures seen in the above species. The length of *subrugosa* is said to be 13 lines, or 26 mm., which indicates a very much larger species than *opaca* Csy., where the antennal scape is very coarsely, densely and rugosely punctured; in *rugosissima* the scape is comparatively smooth and more sparsely punctured and in *lateralis* the body is much smoother. These four species form a type of the genus peculiar to the Lower California peninsula, but they seem to be widely distinct among themselves.

The following species I at first considered a small specimen of *crassa* Lec., but as Dr. Horn, who had without doubt examined the type, states that the surface is clothed "with an extremely fine black velvety pubescence," of which there is no trace here, I assume that it is undescribed:

Moneilema convexa n. sp.—Only slightly ventricose, very convex, glabrous, very moderately shining, the prothorax rather densely alutaceous; vertical front finely, sparsely punctate, impunctate along the middle, the median part of the fine clypeal suture dilated and deeply impressed; antennæ (♂) rather thick, but little over half as long as the body, the scape simple, nearly smooth, the third joint feebly cinereous toward base, the second in a feeble subbasal ring, the others without paler vestiture; prothorax nearly a fourth wider than long, the sides parallel, broadly arcuate, with a feeble obtuse tubercle near basal two-fifths; surface with very moderate, extremely remote and variably separated punctures, becoming only very little larger and less remote basally; scutellum rather smaller than usual, transversely rounded; elytra short, barely three-fifths longer than wide, nearly one-half wider than the prothorax, subevenly oval, the flanks not very abruptly defiexed; surface nearly smooth, faintly rugulose behind; punctures in rather more than basal half somewhat coarse, very deep, widely and irregularly separated; legs thick, notably short; abdomen nearly smooth. Length (♂) 16.8 mm.; width 7.4 mm. Texas (Bethage),—Dr Psota.

Easily identifiable by the very convex and only slightly ventricose outline, rather sparse and somewhat fine punctures, which are coarser on the elytra, small thoracic tubercles and other characters.

Moneilema colossus n. sp.—Rather broad, large in size and strongly convex, rather strongly shining but not polished, the integument micro-reticulate; front distinctly and sparsely punctate, impunctate medially, deeply furrowed above, the clypeal suture distinct medially; antennæ rather long, missing in the type, excepting the first three joints; basal joint with a few minute punctures, feebly oblique at apex internally; prothorax between a fourth and third wider than long, parallel, with feebly arcuate but very uneven sides, which, just behind the middle, bear a long acute and conspicuous spine, only slightly oblique upwardly and nearly straight; surface with moderate and sparse punctures apically and

behind about the middle and with an irregular subbasal series of coarser, close-set punctures; scutellum concave, transverse and rounded; elytra parallel, oblong-oval, two-thirds longer than wide, three-sevenths wider than the prothorax, the flanks moderately abrupt; surface even, covered throughout with feeble longitudinally wavy rugulation; near the base there are very few remote and moderate punctures and three or four, very coarse, arranged along the flexure of the flanks behind the humeri, this line being strongly rugose; abdomen smooth; legs moderately long and thick; first joint of the hind tarsi not spongy-pubescent beneath, the second and third densely so throughout though divided by a very fine line. Length (♀) 29.0 mm.; width 12.0 mm. Arizona (near Tucson),—Tucker.

This is one of the larger species of the genus and seems to be very distinct in all its characters, so that I cannot trace marked alliance with any described form; it may take its place at the end of the series. The length given omits the protruded abdominal apex, including which which in the type measures 32.0 mm.

Monochamus Serv.

The species *strenuus* Csy., has recently been suppressed by Mr. Hopping and united with *maculosus* Hald., but I am of the opinion that this judgment, in the absence of knowledge of the type material, may be premature. The male type of *strenuus* is much larger than any one of an extended series of *maculosus* and differs besides in a number of other characters; selecting, for instance, the third male antennal joint of my largest example of *maculosus* for measurement, I find that it is 7.5 mm. long, while in the type of *strenuus* it is 10.5 mm. in length. Accepting Mr. Hopping's identification of *oregonensis* Lec., as the species that I described under the name *monticola*, I now give the subspecific name **latus** (nov.) to types from Siskiyou and Truckee, Calif., formerly identified by me as *oregonensis*. I have at hand a remarkable specimen of *titillator* Fab., which has been a part of my collection for a great many years, but which I failed to describe, hoping that other examples might be found; it is a male and resembles *titillator* in color and marking, but the prothorax is larger and broader and the elytra are strongly cuneiform, with arcuate sides; the antennæ are not quite so long as in the large males of *titillator*, and I would apply the subgeneric name **obesus** to this remarkable modification; the type is 26.0 by 8.5 mm. in size and its exact locality is not known, but as it came from the Levette collection, it may have been taken in Colorado. *Obtusus* Csy., described from a good series from Siskiyou, Calif., has recently been taken in considerable numbers at Priest Lake, Idaho, by Prof. C. V. Piper.

Leiopus Serv.

The following species may have to be separated from *Leiopus* at some time, owing to the peculiar sparse erect hairs of the antennal scape.

Leiopus crinicornis n. sp.—Nearly parallel, only moderately convex, dark red-brown and scarcely at all shining; pubescence short, grayish, not very dense; head two-thirds as wide as the prothorax, the front almost glabrous, shining, minutely, loosely punctate and with a fine impressed canaliculation; eyes very moderate; antennæ one-half longer than the body, in the type—a male because of the feeble sinuation of the abdominal tip; prothorax rather less than one-half wider than long, widest between basal third and fourth, where there is a very slender oblique spine, the base feebly constricted, rather wider than the apex; surface nearly even in every way, finely, loosely punctulate; scutellum but little wider than long, rounded; elytra a little more than twice as long as wide, barely more than a third wider than the prothorax, the sides parallel, almost straight, gradually rounding behind, the apices rounded; surface with a fine and feebly prominent, much abbreviated line near outer third and also a slightly prominent blackish point at three-fifths near the suture; punctures strong, deep and rather well separated; abdomen smooth, shining and nearly glabrous; legs rather short, loosely pubescent, the hind tarsi very slender, with the first joint much longer than the remainder. Length (♂) 6.5 mm.; width 2.0 mm. Virginia (Nelson Co.).

The antennal scape, side margins of the elytra and the tibiæ have sparse erect hairs, and the lateral spines of the prothorax are peculiarly narrow and subcylindric. This species is not evidently allied to any other known to me. The following is a normal *Leiopus:*

Leiopus nelsonicus n. sp.—Suboblong, strongly convex, rufo-piceous, the vestiture gray, short, coarser than usual and dense; head three-fourths as wide as the prothorax, the vertical front with feebly impressed line and feebly convex; surface nearly smooth; eyes rather small, the lobes unequal as usual; antennæ two-thirds longer than the body, rufous, very slender and filiform, the scape rather thick, only about four times as long as wide, with variegated gray pubescence and, as usual, with no erect hairs; prothorax barely more than one-half wider than long, the angulate sides near basal third acute but not spiculiform, constricted at base; surface moderately punctate, a series along the base evident; there are two minute points of black near the apex; scutellum semicircular; elytra about twice as long as wide and a fourth wider than the prothorax, the parallel sides gradually rounding behind, the apices very narrowly and simply truncate; surface of each with two feeble narrow lines of denser pubescence, but without trace of the V-shaped fascia of *alpha* and other such species; abdomen rather shining through the fine and somewhat looser pubescence; legs moderate in length and femoral thickness. Length (♀) 5.4 mm.; width 2.0 mm. Virginia (Nelson Co.).

Quite distinct from any other species known to me, but for the present it may be placed near *punctatus*, though having much smaller and looser elytral punctures and still less variegated surface.

Urographis Horn

The following species is alli ed to *triangulifera* in general structure but is much larger and stouter and also differs in a number of less conspicuous ways:

Urographis texana n. sp.—Oblong-suboval, moderately convex, the coloration and markings somewhat as in *triangulifera*, but the latter are more broken and less sharply defined; head fully two-thirds as wide as the prothorax, the long vertical front densely and evenly clothed with short gray pubescence; eyes with large and elongate lower and short upper lobe, strongly faceted; antennæ (♀) imperfect in the type, the first eight joints fully as long as the body, the third joint with a series of short coarse stiff and widely spaced setæ beneath, the joints beyond the second with gray pubescence in slightly less than basal half; prothorax not quite three-fourths wider than long, the sides triangularly but bluntly tuberculate at basal third; surface with four velvety-black spots, forming a square, outside of which the paler dense pubescence has two smaller and more rounded spots; scutellum well developed, semicircular; elytra three-fourths longer than wide, more than a fourth wider than the prothorax, subparallel, with feebly arcuate sides, gradually more strongly behind, the apices narrowly sinuato-truncate; surface with dense pale pubescence, having sparse small black punctures and with a basal subtriangular black area, one more oblong at each side at two-thirds, a few irregular in oblique line between these and one small one at the margin near the apex; ovipositor a little longer than the width of an elytron, densely pubescent, with small denuded spots, the apex sharply triangular; legs moderate, with gray and black pubescence, the thighs distinctly clavate. Length (♀) 15.2 mm.; width 5.5 mm. Texas (Comal Co.).

The body is broader and rather more convex than in *triangulifera*, the legs much longer and thicker, the eyes larger, the antennal joints longer and the prothorax less abbreviated, among other differences.

Graphisurus Kirby

This is apparently a rather large genus of small or very moderate species, much narrower and more parallel in outline than those of the *triangulifera* section of *Urographis*, but more nearly like the *fasciata* section. It would seem as though more study should be given, not only the genera but the species, in this section of the Lamiinæ.

Graphisurus obtusus n. sp.—Parallel, very moderately convex, with evenly rounded elytral apices, blackish in color, with very short obscure vestiture, rather paler in basal, submedian and subapical areas on the elytra; head (♂) nearly three-fourths as wide as the prothorax, with feebly variegated pubescence, the eyes well developed, with the usual very unequal lobes; antennæ very slender and filiform, nearly three times as long as the body, the long slender joints gradually increasing slightly in length distally, all beyond the second with close gray pubescence in somewhat more than basal half; third joint a fifth longer than the elytral width; prothorax two-fifths wider than long, the sides with a very broadly rounded dilatation almost half the entire length; basal part abruptly retracted and briefly parallel; at the summit of the large arcuation there is a very minute

spine, which is at about basal third; surface loosely punctate, feebly and very indefinitely variegated; elytra about two and a third times as long as wide, a third wider than the prothorax; surface strongly, closely punctate, each with about three acute costules, which are frequently in part comminuted; legs moderate, the femora clavate distally, the stipes rufous; hind tarsi a little shorter than the tibiæ, with the first joint much longer than the remainder. Length (♂) 11.8 mm.; width 3.7 mm. Idaho (Priest Lake),—Prof. C. V. Piper.

May be placed near *obsoletus* Oliv., but it does not seem to be very closely allied, differing in its more abbreviated outline, larger head and prothorax, longer antennæ, more obtuse rounding of the thoracic sides and very much more minute lateral spine.

Graphisurus punctatus n. sp.—Feebly convex, clothed with very short dense pubescence, very indefinitely mottled with brownish, the darker areas forming two very indefinite fasciæ on the elytra, which are posteriorly angulate on the suture; head (♀) two-thirds as wide as the prothorax, with moderate bilobed eyes, the vertical front deeply canaliculate; antennæ very slender and filiform, nearly one-half longer than the body, the joints cinereous in about basal half, the eleventh shorter than the tenth; prothorax about one-half wider than long, the sides sharply spinose near basal third, the sides thence oblique to apex, just behind which they are minutely prominent, retracted and parallel in basal fifth; base just visibly narrower than the truncate apex; punctures strong and loose; scutellum subsemicircular; elytra two and a third times as long as wide, two-fifths wider than the prothorax; sides feebly oblique, straight, rounding at apex to an obtuse point, thence strongly and somewhat gradually arcuate along the posteriorly thickened suture; punctures coarse, deep, very clearly defined and separated by not quite their own diameters as a rule, gradually smaller and sparser apically; legs rather short, the femora strongly clavate. Length (♀) 10.5 mm.; width 3.3 mm. Michigan (Marquette, Lake Superior),—Sherman.

This species may be placed near *pusillus* Kirby, but it is broader and flatter, with very much coarser and more numerous elytral punctures; its general habitus is quite different from any other. Measurements of length do not include the ovipositor sheath.

Spalacopsis Newm.

The following species has been compared carefully with a specimen of *filum* Chev., from Cayamas, Cuba, and exhibits a number of marked differences:

Spalacopsis confusa n. sp.—Parallel, convex, piceous, clothed with in part densely agglomerated short pale decumbent pubescence, the lineate arrangement of subdenuded small spots on the elytra more evident basally; the vestiture is very dense and incrustate on the head and prothorax, concealing all sculpture; head oblong, slightly elongate, a little wider than the prothorax, the almost contiguous antennal foveæ on a narrowed prominence as usual; eyes well developed but not very prominent; antennæ not very slender, the fringe of erect hairs moderate; prothorax nearly a third longer than wide, subcylindric, truncate at base and apex, the latter somewhat the narrower; there is a short incised line at the centre; scutellum subquadrate; elytra about five times as long as wide,

a fourth or fifth wider than the prothorax, the sides parallel and straight, rather abruptly somewhat oblique and subsinuate in apical sixth, the apices obtuse and slightly everted; suture and two or three discal lines on each feebly prominent; densely pubescent intervals with close distinct punctures in the small subdenuded areas; legs short and thick, the femora swollen. Length 8.3 mm.; width 0.9 mm. Florida (Cape Sable),—W. S. Blatchley.

Differs from the Cuban *filum* in its slightly shorter and rather less slender outline, thicker antennæ, with much shorter loose fringe of hairs, less prominent eyes and much less exposed linear punctures on the elytra; the everted elytral apices are more obtuse.

Spalacopsis exilis n. sp.—Very small and extremely slender, slightly swollen behind, clothed with very short dense gray pubescence, denser along the thoracic sides and on the few fine discal elytral lines and the suture, almost entirely denuded on about the first two elytral intervals; head much longer than wide, slightly swollen at base and just visibly wider than the prothorax; surface broadly impressed along the median line throughout the length, subcontiguous antennæ arising from a support almost as long as wide; antennæ very slender, about five-sixths as long as the body, the joints subglabrous, those beyond the very slender scape without pronounced fringe of erect hairs; outer joints gradually short; eyes moderate, rather prominent; prothorax small, very much shorter than the head, fully two-fifths longer than wide, parallel, the sides feebly oblique at apex; broad median part of the disk subdenuded, the deep punctures distinct, finer and more indistinct along a wide median line; scutellum small, triangular, albido-pubescent; elytra much wider near apical third than at base, the latter about as wide as the prothorax; sides subevenly and moderately arcuate to the apices, which are very narrowly rounded, separated by a large triangular sutural sinus; serial punctures not strongly visible laterally but strong, deep and close-set in two exposed lines along the suture; legs very short but less thick than in the preceding; anterior tibiæ obtusely subdentate within. Length 5.5 mm.; width 0.6 mm. Florida ("Chokol"),—W. S. Blatchley.

In some respects this species is allied to *pertenuis* Csy., but it is still smaller, the antennæ shorter and without even the few long erect hairs of that species, the scape is shorter, more slender and subglabrous; the eyes are larger but less prominent, the elytral series toward the suture coarser and more exposed, the pubescent outer lines more approximate and the apices are more separated by the larger sinus. The sex of the type in both this and the preceding species is undetermined. I am not certain that the name of the locality given above has been truly interpreted from the label.

Saperda Fabr.

This genus consists of rather numerous species, which are usually widely distributed, the following however seems to be rather local in Utah:

Saperda uteana n. sp.—Form and size somewhat as in *horni*, but less elongate; vestiture and markings nearly similar, but the subdenuded punctures of the

elytra are much smaller and sparser; head barely at all narrower than the prothorax, broadly and obtusely impressed along the middle, the eyes moderate, with much larger inferior lobe as usual; antennæ nearly as in *horni* but distinctly longer; prothorax almost similar in form and marking, but with the punctures finer and sparser, cylindric, nearly as long as wide (♂), shorter (♀); elytra nearly similar but with the scattered punctures smaller and sparser; penultimate dorsal segment (♂) deeply sinuate; legs moderate, rather thicker than in *horni*, the tarsi somewhat longer. Length (♂) 10.8–11.8, (♀) 14.0 mm.; width (♂) 2.6–3.1, (♀) 4.1 mm. Utah (Vineyard),—Spalding. Six specimens.

Though closely allied to *horni* Joutel, which extends on the Pacific coast as far south as Los Angeles, this species differs not only in the characters noted, but in the emargination of the penultimate dorsal segment of the male, which is very much shallower in *horni*. Of *concolor* Lec., I have a series taken at Vineyard, Utah, by Mr. Spalding; it is broader than *unicolor* but not quite so broad as *mecasoides;* the vestiture is paler whitish-gray than in either of those subspecies.

In *S. tridentata* Oliv., the median transverse chevron is midway between the first and third fasciæ; in the variety *trifasciata* Csy., it is much posterior to the middle. Of *calcarata* Say., there seem to be several subspecific forms, but they can only be worked out and defined with large and carefully collected series. I have one from the central valleys of Utah. One large female from the Adirondacks of New York, has a less transverse prothorax and very coarse closer punctures toward the elytral base.

Oberea Muls.

In this genus *mandarina* Fabr., and *intermedia* Csy., are to be considered synonyms of *tripunctata* Swed., but *appalachia* Csy., is at least a very well-defined subspecies, because of the peculiar and sharply marked coloration of the head basally; *discoidea* Lec.—which seems to be omitted in the Leng list, is allied closely to *plagiata* Csy., but is narrower and more elongate and has almost entirely black legs; in *plagiata* the legs are pale; neither of them is very close to *ocellata* Hald. The following may be considered a subspecies of *quadricallosa* Lec.

Oberea quadricallosa ssp. **cylindricollis** nov.—Outline and general characters nearly as in *quadricallosa*, but the prothorax is nearly as long as wide, parallel and perfectly cylindrical, and the elytra are deep black, as usual with sharply yellow side margins, but, along the outer discal carina from base for a seventh or eighth the length, there is a narrow yellow-red line; legs pale, the tarsi deep black. Length 13.5 mm.; width 2.8 mm. Northern Illinois,—Wolcott.

The following may be regarded as a subspecies of *prælonga:*

Oberea prælonga ssp. **deficiens** nov.—Very elongate, parallel, pale yellowish, the head pale, the prothorax nearly as in *tripunctata;* elytra pale, even longer than in *prælonga*, almost similarly sculptured, the humeri black for a very short distance from the base; under surface and legs very pale, the sides of the sterna narrowly black; tarsi pale; antennæ pale, gradually black basally. Length 13.0 mm.; width 1.4 mm. New Jersey.

In *prælonga* Csy., the head is in part black, with sharply defined limits and the elytra are black throughout the length.

Tetraopes Serv.

The following seems to be a notably distinct species, recognizable by its very broad outline and deep black basal antennal joint:

Tetraopes latior n. sp.—Very broadly oblong (♀), narrower and smaller (♂), bright red as usual, the pronotum with the usual quadrangle of four black spots; scutellum black; elytra with the humeral angle, an oblique spot on each at basal fifth and inner third and another larger at three-fifths just outside the median line, black; under surface and legs black; head rather large, with widely divided and moderate eyes; antennæ thick, black throughout, the basal joint not at all paler, the joints briefly gray at apex and base, the eleventh joint much narrower than the tenth; prothorax large, one-half wider than long, centrally planately elevated, the sides notably prominent at the middle; punctures moderate and sparse on the slopes, wanting centrally; elytra (♀) only about three-fifths longer than wide, nearly a third wider than the prothorax, parallel, rapidly broadly rounded at apex, the punctures moderate and not dense; pubescence short, gray and moderately close, the erect hairs darker and numerous. Length 12.0–15.0 mm.; width 4.2–5.7 mm. California (summit of Mount Wilson),—A. P. Morse.

May be placed near *junctus*, but it has longitudinally more separated thoracic black spots and no connecting dark lines; it also has a completely black first antennal joint; each elytron similarly has but two discal black spots.

TENEBRIONIDÆ

Of the large number of new species that have been accumulating in my collection for about seventeen years, I shall only be able to describe a very moderate number, including those most widely isolated.

Eutriorophus n. gen.

The body in this genus is larger and rather less constricted at the waist than in *Triorophus*, and it differs in its flat and not tuberculate front, in the concavo-explanate sides of the prothorax and deeply bisinuate base of the latter, also in the longer legs; the type is the following:

Eutriorophus tuckeri n. sp.—Moderately ventricose, convex, shining, deep black throughout and glabrous; head three-fifths as wide as the prothorax, subquadrate, a little wider than long, strongly, rather closely punctate, broadly and obtusely lobed in the middle at apex, the lateral lobes much more retracted and rounded; within each the surface is feebly impressed but there is no such long concavity as is seen along the outside of the tumidity of *Triorophus;* antennæ slender, somewhat longer than the head and prothorax, the fourth joint evidently longer than the second and correspondingly shorter than the third; outer three joints wider, the eleventh barely longer than wide, very slightly narrower, oval; prothorax two-fifths wider than long; base bisinuate and thickly beaded, somewhat wider than the feebly sinuate apex, which has small, sharp and slightly everted angles, widest slightly beyond the middle, the sides broadly arcuate, the basal angles slightly blunt; surface strongly convex, very feebly impressed along the middle, abruptly concave and narrowly explanate along the sides, very narrowly at apex; punctures deep, smaller and closer than those of the head, sparse medially and almost wanting at the reflexed sides; scutellum small, tumid, transversely oval; elytra oblong-oval, three-fifths longer than wide and somewhat more than one-half wider than the prothorax; striæ regular, almost unimpressed, strongly but not closely punctate, the punctures obsolete rather abruptly at apex; intervals smooth, gradually alutaceous apically; sterna coarsely, loosely punctate; abdomen strongly, sparsely so at base, gradually very minutely; legs moderately long, the tibiæ with minute sparse hairs, the tarsi rufo-piceous. Length (♀) 10.0 mm.; width 4.0 mm. Arizona (near Tucson),—J. F. Tucker.

This is a very distinct species, to be easily recognized when found; unfortunately I have but a single specimen at present, which the protruded genitalia indicate to be a female.

Triorophus Lec.

The following is the broadest species known to me and having a broad head and remarkably opaque elytra:

Triorophus laticeps n. sp.—Broad, less ventricose than usual, strongly convex, deep black, glabrous, shining, the elytra and abdomen opaque, the latter shining and very coarsely punctate at the middle of the base; head nearly four-fifths as wide as the prothorax, parallel, with moderate eyes; surface very finely, sparsely punctate, feebly alutaceous, the apical tumorosity large and strong, the sides with a fine strong carina extending some distance beyond the inner margin of the eyes; antennæ black, rather thick, moderate in length, the joints proportioned somewhat as in the preceding, the three outer not evidently broader; prothorax short, fully two-thirds wider than long, widest slightly beyond the middle; base transverse, very heavily beaded, evidently narrower than the apex, which is rectilinear, with very feebly prominent angles, the basal angles obtuse but not rounded; sides arcuate, gradually somewhat oblique basally; surface convex, even, strongly, rather closely punctate; scutellum very short, transverse; elytra broadly oval, three-sevenths longer than wide, pointed behind, less than one-half wider than the prothorax, having unimpressed series of moderate, well-separated punctures, which become obsolete apically; intervals impunctate; abdomen almost smooth, except medio-basally; legs moderate, punctate, the tibiæ asperate and with very minute inconspicuous hairs; tarsi moderate, slender. Length 8.3 mm.; width 3.6 mm. Texas.

May be placed near *nodiceps* Lec., but it is very much broader, having a broader head and prothorax and larger frontal tumidity; the exact locality is unrecorded.

Triorophus nevadensis n. sp.—Ventricose, strongly convex, deep black and shining, glabrous as usual; head subquadrate, a little narrower than the prothorax, rather finely, sparsely punctate, the ocular carina distinct and with three or four neighboring carinæ; eyes very moderate but convex; anterior tumidity large but only moderately convex; antennæ thick, piceous, brownish apically, extending to basal fourth or fifth of the elytra, the three last joints well dilated, the eleventh rounded; prothorax a third wider than long, widest beyond the middle but with broadly rounded sides; base evidently narrower than the apex; angles all simple; surface with strong close punctures, gradually a little smaller and much less close medially, with a short feeble impression on the median line just beyond the centre; scutellum small, short and transverse; elytra evenly oval, almost one-half longer than wide, one-half wider than the prothorax; surface with unimpressed series of unusually small and well-spaced punctures, not extending behind the middle, where the surface becomes slightly alutaceous; general surface with very minute, remote punctulation; sterna and the abdomen medio-basally coarsely punctate, the rest of the abdomen alutaceous and very minutely, sparsely punctulate; legs rufo-piceous, the tarsi slender. Length (♀) 7.2 mm.; width 2.85 mm. Nevada (Las Vegas),—Spalding.

May be placed near *basalis*, but quite distinct in sculpture and in the form of the elytral base.

Triorophus puberulus n. sp.—Ventricose, but with the prothorax rather large, strongly convex, black and highly polished; entire surface with short, suberect and well-separated subfulvous hairs; head barely more than three-fourths as wide as the prothorax, moderately and loosely punctate anteriorly, closely and longitudinally rugose in about basal half, the anterior tumidity moderate; antennæ piceous, not very thick, slightly longer than the head and prothorax, the distal joints only slightly wider, somewhat elongate; prothorax not quite one-half wider than long, widest at about the middle, with rather feebly arcuate sides, becoming distinctly oblique near the base; angles all sharp; base barely at all narrower than the feebly sinuate apex; surface with close and longitudinally subconfluent punctures, finer medially; basal bead margined with a feeble narrow impressed line; scutellum very small, subangulate behind; elytra oval, slightly pointed behind, three-sevenths longer than wide, barely two-fifths wider than the prothorax, strongly, rather closely and confusedly punctate, the punctures much smaller but distinct apically and with only feeble indication of serial arrangement; under surface and legs piceous-brown; entire abdomen loosely punctured, a little more coarsely throughout the basal segment; legs moderate, rather slender, loosely punctured. Length (♀) 7.4 mm.; width 3.15 mm. California (locality unrecorded). One specimen.

This species differs very much from any other hitherto described, not only in the sparse pubescence but in sculpture of the elytra and abdomen, so that it really constitutes a distinct section of the genus.

Triorophus thoracicus n. sp.—Rather large and stout, strongly convex, deep black, polished and glabrous, the legs piceo-rufous; head fully four-fifths as wide as the prothorax, the eyes moderate and not prominent; lateral lobes before

the eyes large; anterior tumidity large, very convex, finely, loosely punctate, gradually more strongly and closely anteriad; surface finely, sparsely punctulate and finely, longitudinally rugose in fully basal half, with a few sharply cariniform lines near the supra-ocular carina; antennæ thick, fully as long as the head and prothorax, black, the third joint between two and three times as long as wide, the three distal joints sensibly thicker; prothorax large, barely more than a fourth wider than long, the sides broadly arcuate, a little more oblique posteriorly; base truncate, slightly narrower than the truncate apex; angles all simple but sharp; surface very convex and even, finely, loosely punctate, gradually more strongly and less sparsely so laterally; scutellum very small, short; elytra evenly oval, one-half or less longer than wide, less than one-half wider than the prothorax, narrowly rounded at the slightly deplanate apex; punctures strong and distant, in unimpressed series to slightly behind the middle; abdomen convex, smooth, punctured strongly medio-basally. Length 7.7–8.0 mm.; width 3.2–3.4 mm. Arizona (near Tucson),—Tucker.

One of the larger species of the genus, allied somewhat to *lecontei* but not so large and less stout, with shorter elytral series of punctures, more rugose head and without the conspicuous anterior thoracic angles of that species.

In *lævis* Lec., the head is said to be no narrower than the prothorax, I have no such form in my collection; the length is said to be 8 mm., and it occurs in the Colorado Desert of California. I have seen no species answering to the description of *punctatus* Lec., found at Vallecitas. *Subpubescens* Horn, differs entirely from *puberulus* in its opaque surface, the elytra faintly striato-punctate, and the interstices with two rows of very faint punctures; its locality is unknown.

Trimytis Lec.

The following species is related to *nympha*, but differs in numerous characters, as will be noted from the description:

Trimytis trapezifera n. sp.—Almost evenly oval, strongly shining and convex, deep black and glabrous; head barely three-fifths as wide as the prothorax, finely, sparsely punctate medially but confluently in moderate grooves laterally and also along the base but more finely; median lobe at apex broadly trapezoidal and slightly more punctate than the surface behind it; eyes rather small, nearly flat; antennæ short, slender, rufous, as long as the apical width of the prothorax, the last four joints slightly dilated; prothorax scarcely one-half wider than long, the sides from base to apex distinctly converging, almost in continuation of the elytral sides and very feebly, evenly arcuate; apex narrower than the base, broadly sinuate and with sharp, anteriorly prominent angles; surface deeply but moderately, somewhat loosely punctate, but a little more coarsely and densely toward the sides, the surface even; base transverse, finely beaded; scutellum very short, transverse; elytra broadly oval, a third longer than wide, about a fourth wider than the prothorax, very obtusely pointed behind, having regular unimpressed rows of rather strong and moderately separated punctures in barely more than basal half, the apical parts almost smooth, scarcely so shining, the general surface minutely, sparsely punctate basally; under surface piceous, the abdomen and legs rufous and very finely, sparsely punctulate, the former

more distinctly at base; hind tarsi very slender. Length (♀) 6.0 mm.; width 2.8 mm. California (locality unrecorded).

Differs from *nympha* in its more oval form, smaller head, less dilated distal antennal joints, more converging sides of the prothorax and smaller and more separated punctures of the elytral series, the latter more abbreviated than in *nympha*.

Edrotes Lec.

This genus includes numerous species, differing among themselves in form, sculpture, nature of the scanty pubescence of more or less long erect hairs, in antennal color and structure and other features. The following is a large species, somewhat allied to *ventricosus* but with altogether different arrangement of the long erect hairs:

Edrotes laticollis n. sp.—Very broadly rounded, almost circular and unusually shining, deep black; sparse erect hairs of the elytra long, evenly distributed, pale grayish in color; head four-sevenths as wide as the prothorax, the eyes comparatively small, convex and finely faceted; surface smooth along the middle, coarsely and somewhat confusedly punctate toward the sides; apical lobe quadrate, with laterally and somewhat acutely expanded apex; antennæ rather long, black, the third joint very much longer than the second or fourth, the three terminal joints much shorter though scarcely thicker than the preceding; prothorax very transverse, between five and six times as wide as the median length, the sides straight, feebly converging; apex broadly and circularly sinuate, the angles very acute and anteriorly prominent; surface wholly smooth and polished in about median half, thence coarsely and closely, strongly rugose to the sides; scutellum wanting as usual; elytra about as wide as long, two-fifths wider than the prothorax, rounded; surface broadly convex, becoming vertical behind, the sutural angle feebly blunted and deplanate; punctures remote throughout and not very large, in part faintly lineate toward the sides; abdomen rather closely, coarsely and asperately punctate; legs rather long, pubescent and black. Length 9.0–9.5 mm.; width 6.3–6.8 mm. Arizona (locality unrecorded),—Kelly.

Allied somewhat to the southern California *ventricosus* Lec., but differs essentially in the even arrangement of the sparse hairs, the feeble and narrow lines of denser and in part shorter hairs seen in *ventricosus* being wholly wanting; there are also many other differences.

Edrotes longicornis n. sp.—Much smaller than the preceding, shining, deep black throughout; pubescence very long, whitish-gray, moderately fine, sparse on the elytra but much closer in narrow lines; head nearly two-thirds as wide as the prothorax, almost flat, punctured laterally, smooth along the middle; apical lobe subquadrate, not much expanded at the sides of the apex but with the apex broadly angulate; eyes moderate but very prominent; antennæ long, black, evidently attaining basal third of the elytra, the third joint almost as long as the next two combined, the distal joints gradually but not distinctly thicker, their surfaces convex; prothorax somewhat more than four times as wide as the median length, the general outline as in the preceding, the long and rather coarse hairs, as well as those of the head, conspicuous; elytra very nearly as wide as

long, rounded, not quite one-half wider than the prothorax, subglobularly convex, becoming vertical behind to the sutural angle; punctures in general very sparse and moderate but, on the abruptly inflexed even flat flanks, coarse, even and moderately separated; abdomen sparsely punctate; legs rather slender, the tarsi long and slender, with notably long claws. Length (♂) 7.25 mm.; width 4.8 mm. California (Chula Vista, San Diego Co., and Owen's Lake). Two specimens.

Differs very much from *ventricosus* in its smaller size, longer antennæ, longer and coarser pale hairs, with the lines which they form in part on the elytra not composed partially of shorter hairs, as they are in *ventricosus;* the inflexed elytral flanks are narrower and have the punctures coarser and more even.

Edrotes variipilis n. sp.—More narrowly rounded, black, rather shining, the legs piceous; pubescence long, sparse and erect and also with short, similarly sparse hairs intermingled on the elytra; head narrower than the prothorax, smooth medially, the eyes small and prominent; antennæ very much shorter and more slender than in the preceding and rufous in color, barely longer than the head and prothorax, the latter much narrower, not quite four times as wide as the median length, the sides more oblique and subsinuate, the apical angles very acute and much produced; surface loosely and coarsely, asperately punctate laterally, smoother medially; elytra rounded, evidently though slightly longer than wide, rather finely, remotely punctate, the erect hairs long and herissate, the shorter hairs comparatively very small and not quite so erect; inflexed flanks strongly, not very closely punctured; under surface coarsely punctate and with very short, the legs with long and conspicuous, pubescence; tarsi much shorter than in the preceding. Length 6.2 mm.; width 4.15 mm. California (Lone Pine, Owen's Lake).

The single female forming the type of this species differs very greatly from the preceding in its narrower outline, shorter rufous antennæ, binary pubescence, shorter tarsi and in many other particulars. It is more closely allied to *angusticollis*, but differs in its smaller size, more narrowly oval form, shorter prothorax, sparser elytral hairs, the longer being more elongate and the shorter relatively more minute, finally in the coarser elytral punctures and especially in the much larger punctures of the inflexed flanks.

Lobometopon Csy.

Representatives of this genus are very numerous in the entire warmer parts of North America west of the 100th meridian. The following are some of those which are still undescribed in my collection:

Lobometopon tuckeri n. sp.—Rather regularly oval, convex, somewhat shining, black, with piceous legs, only the under surface feebly metallic; punctures small and numerous, each bearing a rather coarse short grayish-white hair; head about half as wide as the prothorax, rather finely but deeply, strongly and

closely punctate; eyes well developed, slightly convex; antennæ piceous-black, only a little longer than the head, the joints 8–10 eccentric, dilated and obtriangular, the eleventh narrower, rounded; prothorax one-half wider than long, the sides slightly more rounded just beyond the middle, more converging anteriorly, diverging near the base, with the angles scarcely less than right; apex broadly sinuate; punctures rather fine, very close, slightly less dense medially and with a narrow imperfect median smooth line; base distinctly bisinuate; scutellum moderate, obtusely angulate behind; elytra two-thirds longer than wide, three-sevenths wider than the prothorax, suboval, obtusely narrowed apically; punctures very fine, rather close, with just visibly impressed broad lines, in which they become a little larger and denser; abdomen very finely punctured; legs moderate, the femora feebly clavate. Length 11.3–11.7 mm.; width 5.0 mm. Arizona (near Tucson),—J. F. Tucker. Two specimens.

This species is quite different from any other hitherto known in our fauna and is probably more closely related to some unknown Mexican types.

The four following species are never black but more or less piceo-rufous, seldom pronouncedly metallic and nearly always virtually glabrous:

Lobometopon alticola n. sp.—Pale piceous-brown, the elytra faintly subæneous, moderately shining, closely punctate and with very short and rather sparse pubescence; head less than half as wide as the prothorax, deeply and very closely punctate, the eyes well developed but nearly flat, not at all convex; antennæ as long as the head and prothorax, in structure nearly as in the preceding, the eleventh joint relatively still smaller and oval; prothorax three-sevenths wider than long, the sides almost straight and feebly converging from the base, feebly rounded beyond the middle and thence straight and slightly more oblique to the apex, the basal angles right and sharp, not at all everted; base transverse, strongly lobed in about median half; punctures moderate, deep and dense but not in mutual contact, even and but little less dense medially, without trace of any kind of smooth line; scutellum moderate, rounded; elytra three-fourths longer than wide, oval, at the middle one-half wider than the prothorax, together angulate behind; surface evenly convex, with very faint indication of feebly impressed broad lines suturally; punctures moderately fine, separated by about their own diameters; abdomen finely, closely punctate and distinctly pubescent; legs moderate; hind tarsi four-fifths as long as the tibiæ. Length 9.2–9.9 mm.; width 4.15–4.4 mm. Utah (Coal Creek Cañon, Cedar City—6500 ft. elev.). Two specimens.

Not closely related to any other species, but it may be placed near *symmetricum* in the list.

Lobometopon woodgatei n. sp.—Rather small, elongate-oval, shining, obscure testaceous, the elytra with feeble trace of ænescence; punctures bearing extremely short shining hairs; head nearly half as wide as the prothorax, densely but discretely punctate, the eyes nearly flat; antennæ not quite as long as the head and prothorax, obscure testaceous, the joints 9–10 wider and triangular, the eleventh smaller and oval; prothorax two-fifths to a third wider than long; outline and base nearly as in the preceding; apex sinuate, with finely acute angles; punctures small, dense but discrete laterally, not smaller but more separated medially, with a narrow and imperfect flat smooth line; scutellum small, rounded;

elytra four-fifths to two-thirds longer than wide, less than one-half wider than the prothorax, oval, angulate behind; surface with faintly impressed lines, which do not have over a single irregular line of punctures, the latter fine but strong, close laterally, a little more separated suturally; legs moderate; hind tarsi three-fourths as long as the tibiæ. Length 8.25–9.0 mm.; width 3.65–4.0 mm. New Mexico (Jemez Springs),—John Woodgate. Seven specimens.

This species may follow the last in the list; it is not closely related to any described member of the genus.

Lobometopon juabense n. sp.—Elongate-oval, strongly convex, polished and piceous, glabrous above; head larger than usual, more than half as wide as the prothorax, strongly and rather loosely punctured, impressed along the ocular carina, the eyes not at all prominent, very feebly convex; antennæ only slightly less obscure, about a third longer than the head, the outer joints as usual; prothorax only about a fourth wider than long, the sides very moderately converging throughout, very feebly arcuate, becoming just visibly sinuate behind; apex broadly sinuate, with the angles sharp but not at all prominent; base transverse, arcuately lobed in rather more than median half; punctures strong, widely separated, becoming gradually not much coarser but deeper and much closer though still evidently separated—toward the sides, a very small elongate median area near base alone impunctate; elytra two-thirds longer than wide, subovai, widest rather behind the middle, almost one-half wider than the prothorax; surface even, with a few very obsoletely impressed furrows suturally and apically; punctures strong, widely separated, a little less so laterally; sterna coarsely, loosely punctate, the abdomen very finely and densely though discretely, each puncture of the abdomen bearing a very short fine hair; legs rather long, the femora thin, not at all clavate. Length 10.8–11.7 mm.; width 4.7–5.2 mm. Utah (Trout Creek, Juab Co.),—Spalding. Three specimens.

Quite distinct from anything else known to me, but it can follow the last in the list, though much larger and with coarser and looser sculpture.

Lobometopon provoanum n. sp.—Suboval, strongly convex, rather shining, black throughout and glabrous; head scarcely half as wide as the prothorax, nearly flat, not impressed near the eyes, moderately, deeply and densely punctate; eyes moderate, almost flat; antennæ thick, piceous-black, about a third longer than the head, the outer joints gradually broader, bluntly angulate within, the last smaller, suboval; prothorax three-sevenths wider than long, the sides nearly straight, feebly converging, broadly rounding beyond the middle and thence straight and more oblique to the apex, which is feebly sinuate, with acute and anteriorly somewhat prominent angles; basal angles very acute and just visibly everted; base transverse, with strongly rounded lobe in about median half; surface even, finely, loosely punctate, gradually more strongly and very densely though not coalescently so toward the sides, without any well-defined smooth median line; scutellum moderate, subangulate behind; elytra three-fifths to two-thirds longer than wide, finely though strongly, rather loosely punctate suturally, more strongly and very closely toward the sides, everywhere with evident, broad and more impressed lines, which generally include single, very irregular or broken lines of almost similar punctures; abdomen very moderately and loosely punctate, virtually glabrous, the hairs very minute and almost undetectible; legs moderate, the femora very feebly clavate. Length 9.4–10.3 mm.; width 4.2–4.8 mm. Utah (Provo and Vineyard),—Spalding. Ten specimens.

A rather common species in Utah, but apparently not yet described in print; it may be placed near *cribricolle* Csy., but differs in its rather narrower outline, more abbreviated prothorax, more angulate scutellum, slightly coarser and less close-set punctures of the elytra and in the less dense abdominal punctures, among other differences.

Bothrotes Csy.

The species of this genus are numerous and more especially so in the highland regions of Mexico. Very few occur in the Atlantic regions of this country, and *arundinis* Lec., is the only one at all common. The following is allied to *arundinis* but is more elongate and much larger:

Bothrotes pinorum n. sp.—Oblong-suboval, piceous, with feeble subæneous lustre, more pronounced on the elytra than anterior parts; pubescence short, coarse, rather sparse and grayish in color, somewhat conspicuous; head fully as long as wide and a little more than half as wide as the prothorax, finely, sparsely punctate; eyes almost flat; antennæ nearly one-half longer than the head, blackish, the outer joints dilated as usual; prothorax (♀) about one-half wider than long, the moderately converging sides feebly arcuate, with the margin gradually thickened basally; surface finely, sparsely punctate, tri-impressed, the impressions separated by sharply elevated ridges, the impressions and the ridges extending to basal third; apex deeply trisinuate, the sinuses corresponding with the impressions; base broadly bisinuate; scutellum as long as wide, rounded at apex; elytra three-fifths longer than wide, rather less in the female, much wider than the prothorax, parallel, obtusely rounding behind to the very broadly angulate tip; surface with rather small and sparse punctures and feebly impressed lines. Length (♂♀) 11.0–11.4 mm.; width 4.7–4.9 mm. North Carolina (Southern Pines),—Manee.

Differs from *arundinis* Lec., as above mentioned, and also in its more obscure coloration, much broader and relatively shallower median sinus of the thoracic apex in the female, stronger and rather closer abdominal punctures and in many other features.

Zopherodes Csy.

The following species are both black, with narrow white outer margins, somewhat as in *elegans* Horn, but I cannot identify either of them with that smaller species:

Zopherodes circumductus n. sp.—Moderately convex, dull black, with white outer border; head finely, sparsely punctate; antennæ thick, the joints of the club with a small white spot at each side; prothorax a little longer than wide, the sides broadly rounded, gradually more converging posteriorly; surface with sparse, coarsely, very obtusely subasperate small punctures, each with a minute decumbent white hair; white border with small black nodules and a ninth or tenth the entire width, sharply defined; elytra evenly oval, widest at the middle, fully four-fifths longer than wide, with narrow outer white border nearly a third

the width of each; nodules throughout large, well defined, confused in arrangement, their posterior slope steep and with a small puncture bearing a minute white hair, the nodules of the white border small between two larger rows; legs finely, sparsely punctate, the inner whitish dense tomentum distinct. Length 18.5 mm.; width of elytra 6.5, of prothorax 6.2 mm. New Mexico (Fort Wingate),—Woodgate. One specimen.

This species is evidently related to *elegans* Horn, but larger, and the elytra are slightly wider than the prothorax and not narrower as described of *elegans*, the tubercles also are not arranged in nine rows but are completely confused; they are rather depressed, except behind, but sharply defined throughout and are narrowly separated, the interstitial surface not smooth but with coarsely granulose sculpture.

Zopherodes woodgatei n. sp.—Form nearly similar, dull black and virtually glabrous; head and antennæ nearly similar; prothorax slightly elongate, the arcuate sides more rapidly converging basally; punctures rather sparse, smaller than in the preceding, feebly and obtusely muricate, each with a still more minute whitish hair; side borders whitish but narrower, barely a tenth the total width and with the outer edge black, the white area with small obtuse black nodules; elytra evenly oval, widest at the middle, where they are very slightly wider than the prothorax, the large and feebly convex tubercles arranged in seven rows and well defined, their hind margins not prominent as in the preceding but with a small puncture bearing an extremely minute hair, often invisible; the lateral border is very narrow, irregular within, having an uneven mixture of black nodules and separated from the sides by a wide black nodulose margin; interstices smooth, but having small and sparse, obtusely submuricate nude punctures; legs moderate, nearly as in the preceding. Length 17.4 mm.; width of elytra 5.9, of prothorax 5.7 mm. New Mexico (Jemez Springs),—John Woodgate.

Allied evidently to the preceding but differs in the more ventricose outline, very narrow white border, which is separated from the sides by a black margin, entirely wanting in *circumductus*, in the linear arrangement of the elytral tubercles, with smoother interstices and in the stronger sparse punctures of the abdomen. From *elegans* it differs in its relatively wider elytra; there are seven rows of elytral tubercles inside the whitish borders.

The form *verrucipennis* Csy., is very closely allied to *otiosus*, but its relationship is rather that of a variety than synonym; it is smaller, more abbreviated and with slightly sparser nodules on the elytra.

Zopherodes prominens n. sp.—Subparallel, convex, deep black throughout and alutaceous, nearly glabrous; head finely, sparsely punctate; antennæ short, the last two joints subconnate, forming a subquadrate club; prothorax as long as wide, the sides obtusely prominent just beyond the middle, thence straight and parallel for some distance, then circularly rounded at apex, oblique and straight basally; base two-thirds as wide as the entire apex; punctures rather

sparse and moderate, becoming closer and asperulate laterally, each puncture with a very minute thick hair; scutellum very small but distinct; elytra oval, more than three-fourths longer than wide, equal in width to the prothorax, having throughout moderate and rather flat, close-set and confused verrucations, each with a small posterior puncture inclosing a minute shining hair; apex of each elytron with a strong discal elevation; legs short and thick, finely, sparsely punctate, the inner tomentose border distinct; abdominal punctures strong, well eparated. Length 19.0 mm.; width 6.2 mm. Nevada (Las Vegas),—Spalding.

This is a distinct species, easily known by the form of the prothorax; it may be placed near *californicus*, but is distinguishable by its narrower and more parallel outline, feebler elytral verrucation and larger and stronger prominences at the sides of the prothorax just beyond the middle.

Centrioptera Mann.

The species of this genus are moderately numerous, stouter than those of the preceding genus, the elytra with more or less acute tubercles along the strial intervals. The two following species have the pronotum smooth, except at the sides, and are therefore to be classed with *muricata* Lec.:

Centrioptera serrata n. sp.—Rather narrow, deep black, moderately convex, glabrous, opaculate, the head and pronotum slightly shining; head three-fifths as wide as the prothorax, finely and remotely punctulate, the large epistomal region strongly and less remotely; antennæ scarcely one-half longer than the head, the last joint rounded, narrower than the tenth; prothorax a fifth or sixth wider than long, widest just beyond the middle, the sides strongly, evenly arcuate, becoming feebly sinuate toward the basal angles; base thickly beaded, rectilinear, distinctly narrower than the broadly and strongly sinuate apex, the apical angles acute and produced anteriorly; surface very minutely, feebly and remotely punctulate, strongly and confusedly punctate narrowly along the sides; scutellum tumid, transversely triangular; elytra about three-fourths longer than wide, oblong-suboval, very slightly widest behind the middle, about a third wider than the prothorax; striæ barely at all impressed and with very moderate distant punctures; intervals with single series of moderate, distant punctures, very feebly muricate but laterally becoming strong and obliquely acute tubercles, giving the sides a serrate appearance, small and sparse apically; abdomen coarsely and sparsely punctate, the first segment impunctate, but biobliquely rugulose medially. Length 18.3 mm.; width 6.8 mm. Nevada (Las Vegas),—Spalding.

Differs from *muricata* Lec., in its more elongate outline, slightly longer antennæ and longer, more unequally verrucose elytra, the sharp tubercles being very much longer laterally than medially, while in *muricata* they are of approximately equal size throughout.

Centrioptera elongata n. sp.—Larger, elongate, deep black, glabrous, shining, the pronotum in some examples alutaceous, probably as a sexual character; head three-fifths as wide as the prothorax, deeply and closely though discretely punctate broadly toward the sides, subimpunctate medially; labrum piceous,

with bright reddish hairs; antennæ scarcely one-half longer than the head, the last joint narrower than the tenth, rather short but conically pointed; prothorax more transverse, between a third and fourth wider than long, widest at two-fifths from the apex, the sides evenly arcuate, gradually converging behind, becoming broadly sinuate at base, the latter rectilinear and about as wide as the deep apical sinus, the apical angles only moderately produced and not so acute as in the preceding; surface very finely, remotely punctate, coarsely and densely so in the rather broad marginal concavity; scutellum transversely triangular; elytra two-thirds to three-fourths longer than wide, oblong-suboval, slightly widest subposteriorly, a fourth or fifth wider than the prothorax, having unimpressed series of rather coarse, deep and well-separated punctures, the interstitial series of very moderate and subasperate, widely separated punctures becoming coarse, oblique and very sharply elevated toward the sides and, subapically, becoming small and sparse again near the apex; base broadly, feebly sinuate as usual; abdomen shining, coarsely, loosely punctate, more or less rugulose medio-basally; legs rather slender. Length 21.0–22.0 mm; width 8.0–8.6 mm. California (La Puerta, San Diego Co.).

Much larger than *muricata* and more shining, the prothorax more transverse and convex than in that species, the elytral sculpture more accentuated.

Schizillus Horn

The following is the second known species of this genus, which resembles a robust *Centrioptera* in general habitus, but has a much broader head and finer and more feeble sculpture:

Schizillus opacus n. sp.—Oblong-oval, rather convex, deep black and glabrous, the lustre dull throughout; head about two-thirds as wide as the prothorax, moderately and loosely punctate, less so medially, broadly truncate at apex, with rounded angles and oblique sides; eyes completely divided; antennæ not very thick, rather long, one-half longer than the head, the distal joints not distinctly thicker, the eleventh rounded, obtusely pointed and much shorter and narrower than the tenth; prothorax transverse, three-sevenths wider than long, widest at apical two-fifths, the sides evenly rounded, becoming sinuate and parallel at base, the angles slightly acute; base very feebly sinuate laterally, almost as wide as the sinuate apex, which has the prominent angles bluntly rounded at tip; surface with an obtuse shallow impression parallel to the base and not extending to the sides; punctures small and widely separated, but very little larger or less distant laterally, the edge more finely beaded than the base; scutellum very moderate, transverse and obtusely, arcuately triangular; elytra broadly oval, widest at the middle, four-sevenths longer than wide and a third wider than the prothorax; surface with unimpressed and somewhat irregular series of small and distant, subasperate punctures, with others minutely tubercular scattered over the intervals, becoming stronger toward the sides and base, subobsolete at apex; legs rather slender, closely, strongly punctate; abdomen finely, remotely and feebly punctate, more strongly at base; mesosternum gently sloping, impressed and smooth medially as in *Cryptoglossa*, coarsely rugose along the edges. Length 22.0 mm.; width 9.3 mm. Nevada (Las Vegas),—Spalding.

This species differs from *laticeps* Horn, the type of the genus, in two important particulars, for, in *laticeps*, the last antennal joint is said to be "broadly oval, stouter than the preceding" and

the mesosternum is "nearly vertical, emarginate in front." The sex of the unique type of *opacus* is undetermined.

Cryptoglossa Sol.

The following is at least a subspecies of *lævis*, or it may prove to be of higher value:

Cryptoglossa lævis ssp. **subsimilis** nov.—Similar to *lævis* in general form and in the absence of sculpture, but much larger and slightly more elongate, deep black, shining, smooth and glabrous. Length 16.5–18.5 mm.; width 8.5–9.0 mm. Arizona. Two specimens.

The antennæ and legs seem to be somewhat longer than in *lævis*. The elytra in *subsimilis* are less smooth than in *lævis*, having more numerous feeble striiform lines and stronger punctures toward the sides.

Pelecyphorus Sol.

The following species stands near *pantex* Csy., but is smaller and much narrower:

Pelecyphorus uteanus n. sp.—Ventricose, deep black, dull and glabrous; head four-sevenths as wide as the prothorax, moderately, rather loosely and evenly punctate throughout, finely granulose at base; anterior margin truncate; labrum rather closely punctate, smooth at base; antennæ scarcely one-half longer than the head, the dilated ninth and tenth joints subequal, the eleventh very small, scarcely half as wide or as long as the tenth and rufo-piceous; prothorax between a third and fourth wider than long, parallel, the moderately arcuate sides becoming straight at base, subgranose and obtusely crenulate; base broadly arcuate, slightly wider than the broadly sinuate apex; apical angles obtuse, very feebly everted; surface finely, closely and strongly granose throughout, feebly explanate laterally; scutellum smoother, triangular; elytra oblong-oval, moderately convex, two-fifths longer than wide, four-sevenths wider than the prothorax, gradually subvertical behind; surface with an acute carina just outside of the median line and ending at the summit of the declivity, also with a finer and very feeble raised line, abbreviated and between this and the suture; lateral margin acutely cariniform, nearly like the discal carina; surface finely, loosely granulose; deflexed flanks deep, still more finely and sparsely granose; abdomen finely, sparsely punctate and partially granose; legs long and slender. Length 14.0–16.0 mm.; width 7.4–8.7 mm. Utah (Trout Creek, Ibapah Mts.),—Spalding.

The legs are relatively longer and thicker, and the abdomen duller than in *pantex* and it can be recognized readily by the smaller size and much narrower outline. It is still closer to *haruspex*, but differs in the blunt and not acute apical thoracic angles and the closer and more distinct abdominal punctuation of *haruspex*, and the legs are longer and thicker; the prothorax is relatively somewhat smaller than in the latter and the inner elytral line more nearly obsolete. *Ellipsipennis* is related to both these species, but the

hind body is more elongate and the prothorax is relatively still smaller.

Euschides Lec.

A large number of species compose this genus; they segregate themselves into several very well-defined and for the most part clearly limited subgeneric groups, which seem to be worthy of distinctive names, though none have been proposed as yet:

Euschides oblongus n. sp.—Oblong, subparallel, very feebly convex and almost flat, deep black, glabrous and feebly shining; head barely more than half as wide as the prothorax, wider than long, moderately but deeply, loosely punctate, the apical margin broadly sinuate in one-half the total width; eyes convex and prominent from above; antennæ short, slightly longer than the width of head, the tenth joint wider and longer than the transverse eleventh, the former with a white tomentose spot at each side of the apex, the eleventh with the entire apex similarly modified; prothorax two-fifths wider than long, parallel, slightly widest at the middle, the sides thence straighter to apex and base, the latter not beaded, feebly arcuate medially, very slightly wider than the broadly and deeply sinuate apex, which has the angles produced and acute, the basal right and sharp; surface minutely, remotely punctate, coarsely and sparsely so in the feebly concave lateral deplanature; scutellum triangular; elytra just visibly widest behind, three-fifths longer than wide, only a fourth or fifth wider than the prothorax, the elevated side margins not extending more than a sixth the length posteriorly; surface almost smooth, finely and remotely punctulate; deflexed flanks flat, sharply defined, with moderate sparse punctures; abdomen virtually smooth; legs slender, the femora strongly, closely punctured, the tibiæ opaque and densely asperate. Length 22.5 mm.; width 11.0 mm. New Mexico (Roswell).

May be placed near *sponsor*, but flatter, more parallel, without rugose sides of the pronotum and with only very short raised elytral side margins. The eleventh antennal joint is relatively much larger.

Euschides oregonensis n. sp.—Much smaller, suboblong, convex, black, rather dull, with short and sparse, obscure stiff hairs, these bristling along the sides of the body; head scarcely more than half as wide as the prothorax, strongly but loosely punctate, truncate at apex, the eyes rather prominent from above; antennæ short, but little longer than the width of head, not very thick, bristling with short blackish setæ, the outer joints gradually a little broader, the eleventh small, rounded, smoother and rufescent; prothorax two-fifths wider than long, parallel, the sides evenly, circularly rounded throughout, the basal angles rounded, the apical but little produced and slightly blunt at tip; base broadly arcuate, not at all beaded, much wider than the sinuate apex; surface evenly convex, rather strongly, somewhat loosely and evenly punctate, more coarsely in the deep narrow concavity along the rather sharply reflexed sides; scutellum small, equilatero-triangular; elytra only about a fourth longer than wide, fully two-fifths wider than the prothorax, parallel, with very moderately arcuate sides, the surface rapidly subvertical at apex, each having three very low obtuse raised lines, which are unevenly and feebly comminuted, the general surface feebly and unevenly, faintly subrugulose and with very small, feeble and sparse punctures; sides very finely and feebly, acutely margined, this being lost behind; deflexed flanks concave in part; abdomen rather shining, finely, sparsely punctate;

legs moderately long, slender, somewhat shining. Length 13.5 mm.; width 7.5 mm. Oregon (south central),—Shantz. One specimen.

This species is related to *tetricus* Csy., but differs in its much more abbreviated form, relatively still smaller eleventh antennal joint, more narrowly reflexed thoracic margins, longer and more bristling setæ along the sides of the body and more slender legs, as well as numerous other features as seen from a good series of eight specimens of *tetricus* taken in Utah by Mr. Spalding.

Sphæriontis Csy.

As references to *muricata* Lec. in the Leng list are recorded as Oregon and Southern California, it is beyond doubt that the following species has been confused with the *muricata* of LeConte, which was described from Oregon, and the large series in my collection includes no other locality:

Sphæriontis latissima n. sp.—Very broad, oblong-suboval and strongly convex, dull in lustre, the feeble asperities of the elytra more shining, glabrous and deep black; head broad, though only three-sevenths as wide as the prothorax, the broadly rounded reflexed apex rather sharply sinuate medially; surface very finely, feebly and sparsely punctate; antennæ rather slender, short, not as long as the width of head; prothorax short and very transverse, about three times as wide as long, the sides moderately converging and arcuate, gradually more so anteriad; base broadly bisinuate, very much wider than the deeply sinuate apex, both with a dense short yellowish fringe; surface smooth, gradually concavo-reflexed and feebly, subrugosely punctulate at the sides, the edge with a few short fulvous setæ; scutellum well developed, transversely parabolic; elytra barely as long as wide, equal in width to the prothorax, gradually rounding from near the base; surface with very small and feeble, uneven tubercles, becoming very fine posteriorly; sides obtusely inflexed; abdomen smooth, finely punctate medio-basally; legs rather short, slender and smooth, the tarsi long. Length 11.7–11.8 mm.; width 7.35–7.75 mm. California (southern—Palm Springs). Two specimens.

Can be compared only with *muricata* Lec., and is probably often confounded therewith, but it is much broader, the head not finely, densely granulato-punctate as in that species, but nearly smooth, the pronotum not finely and sparsely punctate but smooth, the elytra with flatter and more feeble granulations; there are also many other notable differences. The hind thoracic angles are only briefly produced behind.

Sphæriontis fulvescens n. sp.—Much more narrowly oval, smaller, strongly convex, shining, rufo-piceous and glabrous; head three-sevenths as wide as the prothorax, finely, loosely granulato-punctate, smooth medially; apex sharply reflexed and subacutely sinuate; antennæ slender, piceo-rufous and slightly longer than width of head; eyes short and very moderately convex; prothorax between two and three times as wide as long, the sides feebly converging and

evenly arcuate from the posteriorly prominent acute hind angles to the narrowly rounded apical angles; base broadly arcuate, becoming sinuate at each side, very much broader than the sinuate apex, both with dense yellow fringe; surface minutely remotely punctulate, a little more strongly and granularly toward the narrowly deplanate sides; elytra evidently longer than wide, as wide as the prothorax, the sides arcuate, gradually converging behind; surface strongly and closely asperate though polished throughout; legs rather short and slender; abdomen smooth, with a few small punctures at base. Length 9.7 mm.; width 5.8 mm. California (Lone Pine, Owen's Lake). One specimen.

This species is very distinct in general habitus and could not be confounded with any other.

Eusattus Lec.

Discodemus Lec.

Assuming *difficilis* Lec., as the type of *Eusattus*, it becomes necessary to unite *Discodemus* with the latter genus, as all the structures are similar, particularly the inflexed sides of the elytra and the epipleura; so all of the species which I have described under the name *Discodemus* should be transferred to *Eusattus*. The species *dubius* and *productus* Lec., and *nanus*, *oblongulus*, *explanatus*, *lobatus*, *vicinus* and *spaldingi* Csy., constitute the genus *Conipinus*, of LeConte, which is valid because of the radically different structure of the inflexed sides of the elytra.

The two following species are peculiar, the first in its quadrate outline and the second in its deep black opacity, giving a velvety appearance:

Eusattus quadratus n. sp.—Convex, parallel, deep black, opaque and glabrous; head barely three-sevenths as wide as the prothorax, opaque and minutely, feebly and very indistinctly punctulate, the apex broadly and feebly sinuate at the middle; antennæ deep black, shining, much longer than the width of head; prothorax two and one-half times as wide as long, the sides parallel, gradually broadly rounded from about the middle; base wholly unbeaded as usual, broadly, moderately arcuate, sinuate at each side, the hind angles posteriorly produced and very acute; apex evenly, circularly sinuate, the angles but little produced, rounded; surface smooth, feebly uneven in the basally rather narrow deplanature; scutellum extremely short, broadly, obtusely and rectilinearly triangular; elytra between a fourth and fifth longer than wide, equal in width to the prothorax, the sides parallel, just visibly arcuate, rather rapidly rounding behind, the sutural angle bluntly rounded; surface with about six smooth but opaque uneven and feebly elevated lines, the intervals similarly opaque, rather coarsely and closely but not conspicuously punctate, the surface in the type more conspicuously impressed inside the fourth line, but perhaps as an abnormal formation, obtusely inflexed sides finely, sparsely punctate, the basally very broad epipleura shining and feebly, remotely punctulate; legs rather short and slender, the middle tarsi much longer than the tibiæ. Length 11.0 mm.; width 7.0 mm. New Mexico (Roswell). One specimen.

There is no described species with which the present can be compared very closely, the basally parallel prothorax giving it a remarkable appearance.

Eusattus subvelutinus n. sp.—Oblong-oval, moderately convex, deep black, opaque and glabrous; head one-third as wide as the prothorax, opaque, minutely, loosely and rather indistinctly punctulate, the apex very obliquely subarcuate at the sides, obtusely sinuate medially; eyes feebly convex; antennæ deep black, shining, a third longer than the width of head, the last three joints slightly dilated, the last but little narrower than the two preceding; prothorax only about two and a fourth times wider than long, the sides moderately converging and arcuate from the very moderately prolonged acute basal, to the rounded apical, angles, moderately deplanate, the deplanature lost behind the apex; base broadly arcuate, rather narrowly sinuate at each side, the sinuate apex finely and feebly beaded; surface smooth, opaque; scutellum very short, transversely triangular; elytra barely visibly longer than wide, as wide as the prothorax, the sides rounding behind about the middle; surface with very feeble and irregular, less opaque lines, which are sometimes wholly lost, the sculpture rather coarse, extremely shallow and often entirely untraceable; inflexed sides moderately but distinctly, loosely punctate, the epipleura wide at base and abbreviating the inflexed sides; legs slender, the tarsi long, the posterior very nearly as long as the tibiæ; abdomen smooth. Length 11.2–12.6 mm.; width 6.75–7.7 mm. New Mexico (Roswell). Five specimens.

The subobsolete dorsal sculpture and very dense, smooth and velvety opacity will render the identification of this species quite certain.

Eusattus woodgatei n. sp.—Oblong-oval, convex, somewhat impressed along the elytral suture, black, shining and glabrous, the head and pronotum opaculate; head not more than a third as wide as the prothorax, minutely and loosely punctate, smoother at base; apex only very shallowly sinuate medially; antennæ black, shining, the last four joints forming a loose and slightly dilated club; prothorax very nearly three times as wide as the median length; sides strongly converging and feebly arcuate throughout; base feebly arcuate, flexed posteriorly at the sides, the angles much produced and very acute; apex sinuate, with rather blunt angles; surface smooth, with some sparse and excessively minute punctulation toward the sides, the latter feebly concavo-reflexed, very narrowly so at apex; scutellum invisible; elytra oval, barely at all longer than wide, at the middle just visibly wider than the prothorax, parallel, rounded in nearly apical half, the margin at the suture very slightly prominent as usual; surface with a few broad, smooth and uneven, feebly convex lines, elsewhere with very coarse, uneven and generally well separated punctures; obtusely inflexed sides with some smaller, sparse punctures, the basally broad epipleura and the abdomen smooth and shining; legs slender, the hind tarsi very slender and subequal in length to the tibiæ. Length 9.0 mm.; width 5.8 mm. New Mexico (Jemez Springs),—John Woodgate.

A distinctly characterized species, which may be placed near *compositus* and *acutangulus*, but having a much more abbreviated prothorax.

Conipinus Lec.

The forms *productus* Lec., and *explanatus*, *vicinus* and *lobatus* Csy., constitute a well-defined group; in general outline and habitus of the body *productus* differs from the other three in having the thoracic sides narrowly but strongly reflexed, while in the other three they are simply deplanate. In *lobatus* the antennæ have a loose 4-jointed club, while in *explanatus* and *vicinus*, there is no evident club, in the former the antennæ continuing about parallel to the tip, while, in *vicinus*, the last three joints are successively smaller, producing an attenuate effect, and it also has the body more abbreviated than any of the other three. The following species is in full harmony with the four mentioned in general habitus, but is much smaller:

Conipinus spaldingi n. sp.—Oblong-suboval, strongly convex, feebly shining or alutaceous, black and glabrous above; head more densely opaque, finely, rather closely punctate, smoother medio-basally; apex broadly arcuate, rather narrowly, deeply sinuate gradually toward the middle; antennæ but little longer than the width of head, rather slender, the last three joints feebly dilated and subequal; prothorax two and one-half times wider than the median length, the sides narrowly reflexed, more deeply toward apex, nearly straight in about basal half, slightly converging and feebly arcuate thence to apex; base broadly arcuate, sinuate laterally, the angles only briefly produced, very acute; apex deeply sinuate, the angles narrowly rounded at tip; surface very finely, sparsely punctulate, gradually a little less finely and more asperulately toward the sides and in the narrow marginal gutter; scutellum invisible in the type; elytra very slightly longer than wide, as wide as the prothorax, the sides parallel, very feebly arcuate, rounding behind the middle; surface even, distinctly but shallowly, sparsely punctate, the punctures asperate; inflexed sides obtusely rounded; epipleura narrow to the base, finely punctate and with coarse sparse yellowish hairs; legs very slender, the hind tarsi a little shorter than the tibiæ. Length 8.7 mm.; width 5.4 mm. Nevada (Las Vegas),—Mr. Tom Spalding.

This species is to be recognized easily by the evenly oblong-oval outline, very convex, smooth surface and the very fine and sparse but somewhat sharply muricate elytral punctures.

Coniontis Esch.

The following is a peculiar species in its small size, convex and nearly smooth, shining surface and very moderate sculpture:

Coniontis wadei n. sp.—Elongate-oval, strongly convex, black and very shining, glabrous; head three-sevenths as wide as the prothorax, minutely and loosely punctate, the apical sinus a third the total width; antennæ slender, rufous, slightly more obscure basally; prothorax not quite three-fourths wider than the median length, the sides feebly converging, feebly arcuate, gradually a little more so anteriorly, very finely margined; base feebly arcuate, gradually slightly sinuate at each side, the angles but very slightly produced, not very acute at tip;

apex sinuate, with distinctly rounded angular apices; surface even, very finely, loosely punctate, gradually somewhat more distinctly broadly toward the sides; scutellum small, obtusely triangular; elytra a third longer than wide, equal in width to the prothorax; sides parallel, gradually rounding behind; surface with moderate, deep and clearly separated punctures, not more than faintly rugulose; under surface finely, loosely and feebly punctulate; hind tarsi slender, about as long as the tibiæ. Length 8.0 mm.; width 4.0–4.2 mm. Washington State (Wilbur),—J. S. Wade. Two specimens.

I cannot find any species to which the present is at all closely allied, but it may be placed near *degener* for the present; it is smaller, much narrower and with stronger punctuation.

Cœlocnemis Mann.

But little work has been done upon this genus for the past fifty or sixty years and in the meantime a considerable number of species have been accumulating in our collections. To make known the species in my collection it is better to make use of a dichotomous table as follows:

Prothorax more or less distinctly angulate at the sides, the apex of the angle more or less rounded, though sometimes narrowly so.....2
Prothorax with broadly rounded sides.....12
2—Elytral surface evidently, sometimes strongly, punctured.....3
Elytral surface impunctate, excepting series of moderate strial punctures.....10
3—Elytra somewhat inflated and obtuse posteriorly, slightly widest behind the middle. Oblong, very moderately ventricose, moderately but deeply, closely and evenly punctate throughout, the elytra with feebly marked unimpressed series of moderate punctures; head half as wide as the prothorax, the antennæ short, less than one-half longer than the width of head; prothorax nearly one-half wider than long, the lateral angulation broadly rounded, the sides thence to the base feebly sinuate, barely more so at the right and rather sharp hind angles; scutellum obtusely triangular, between two and three times as wide as long; elytra three-fifths longer than wide, a fourth wider than the prothorax; abdomen more coarsely rugose at base; legs slender, the punctures moderately small, well separated. Length 19.0–22.0 mm.; width 8.5–10.0 mm. British Columbia,—J. F. Kemp. Two specimens.
columbiana n. sp.
Elytra more evenly oval, or widest at about the middle.....4
4—Elytra obtuse behind, subangulate.....5
Elytra obliquely prolonged behind.....10
5—Sides of the prothorax with the prominent angulation narrowly rounded and conspicuous; general sculpture strong, dense, the elytra rugose. Head almost half as wide as the prothorax, the antennæ short, not one-half longer than the width of head; prothorax nearly one-half wider than long, widest slightly behind the middle, the sides rather strongly oblique beyond and behind the angulation, broadly arcuate and feebly sinuate respectively, the basal angles slightly everted and acute; surface like the head, slightly alutaceous; elytra three-sevenths longer than wide, only barely visibly wider than the prothorax, the sides feebly arcuate, gradually more so behind about the middle; surface more shining, coarsely, confusedly rugose and with small sparse punctures; series fine and rather indistinct; legs somewhat

shorter and thicker than usual. Length 24.0 mm.; width 10.0 mm. California. A single specimen, not more definitely labeled and partially crushed. **rauca** n. sp.

Sides of the prothorax with the angulation more obtusely rounded; general sculpture less pronounced. 6

6—Prothorax distinctly transverse or dilated. 7

Prothorax only feebly transverse; body smaller in size. 9

7—Elytra coarsely, transversely creased. Surface shining, finely, rather sparsely punctate; head slightly less than half as wide as the prothorax, more opaque in some examples and finely punctate; antennæ one-half longer than the width of head; prothorax strongly convex, nearly a third wider than long, the oblique sides broadly sinuate behind the obtuse angulation, the angles right and rather sharp; punctures very small and widely separated; scutellum but little over twice as wide as long, triangular; elytra evenly oval, strongly convex, widest at the middle, about one-half longer than wide and nearly two-fifths wider than the prothorax, rugulose, many of the rugæ briefly transverse, the punctures very fine and sparse, well separated; punctures of the series apparently stronger than those in the two following species, because of the attached transverse rugulosity; legs rather long and slender, loosely punctate. Length 20.0–20.5 mm.; width 8.0–8.2 mm. California (southern). Three specimens. **ovipennis** n. sp.

Elytra confusedly and more finely creased; body larger in size than in *ovipennis*, the prothorax larger and more transverse. 8

8—Body rather more elongate, more shining, the punctures fine and well separated, a little stronger and less sparse on the head; antennæ short; prothorax nearly one-half wider than long, the oblique sides basally becoming more sinuate, the angles rather sharply marked and sometimes feebly everted; punctures very moderate and well separated; scutellum scarcely over twice as wide as long, triangular; elytra nearly three-fifths longer than wide, fully a fourth wider than the prothorax, the surface nearly smooth, the creases fine, the punctures small and well separated; serial punctures moderate and widely separated, deep and very clearly defined, lying along the middle of a narrow smooth line which, however, is often obsolete. Length 19.5–24.5 mm.; width 8.3–9.6 mm. California (middle coast regions). Eight specimens. **dilaticollis** Mann.

Body more abbreviated and relatively somewhat broader, less shining and with the punctures stronger, deeper and more close-set; head slightly less than half as wide as the prothorax, which is still more transverse, about one-half wider than long, the basal angles sharp and slightly everted; punctures not very coarse but strong, deep and close-set; scutellum slightly more transverse; elytra barely more than one-half longer than wide and only about a fifth wider than the prothorax, the surface slightly more rugulose, the somewhat stronger punctures less widely separated, the narrow smooth line inclosing the somewhat stronger strial punctures nearly as in the preceding. Length 22.5–24.5 mm.; width 9.0–10.5 mm. California (Lake Tahoe and Placer Co.) and Oregon (Clackamas Co.). Six specimens. **californica** Mann.

9—Form rather narrow, moderately ventricose, deep black, somewhat alutaceous; head opaque, finely, loosely punctate, slightly more than half as wide as the prothorax; antennæ barely more than one-half longer than the width of head, the last five joints wider; prothorax small, only a third wider than long, widest behind the middle, the sides rounded, strongly oblique basally, becoming parallel at base, the angles right, not rounded; surface with strong, deep and close-set punctures, feebly subdeplanate along the lateral angles, which are broadly rounded; scutellum small, about twice as wide as long; elytra one-half longer than wide, three-sevenths wider than the prothorax, with

arcuate sides and rather obtuse apex; surface feebly rugulose, moderately but deeply, rather closely punctate, the well-separated punctures of the series nearly three times as large; legs very moderate, slender; abdomen finely, loosely punctate. Length 17.5 mm.; width 7.8 mm. Utah (Provo Cañon), —Spalding..... **utensis** n. sp.

Form more elongate, the prothorax larger and nearly a third wider than long; general sculpture and punctuation nearly similar; head a little larger; antennæ much longer, more than two-thirds longer than the width of head; prothorax widest near basal two-fifths, the sides moderately oblique anteriorly and distinctly arcuate, broadly sinuate and more oblique basally, the angles acute and everted in a way quite different from than seen in the preceding; elytra nearly similar in form and sculpture but longer; legs notably long and thick, forming a remarkable contrast with the preceding. Length 20.0 mm.; width 8.4 mm. Utah (Provo Cañon),—Spalding. One specimen. **spaldingi** n. sp.

Form somewhat similar but more abbreviated, rather shining, the head opaque, barely one-half as wide as the prothorax, the punctures rather close-set, larger posteriorly, rather small apically; antennæ one-half longer than the width of head; prothorax barely over a fourth wider than long, the lateral angulation behind the middle and more narrowly rounded than in the two preceding, the sides thence to the apex more nearly parallel but slightly arcuate, similarly broadly rounding at apex, oblique behind the angulation, becoming parallel for some distance before the basal angles, which are right and sharp; surface moderately and loosely punctate, gradually coarsely and more closely so toward the sides; scutellum similar; elytra four-sevenths longer than wide, between a third and fourth wider than the prothorax, briefly transversely rugose, the punctures deep, not fine, rather close-set, the serial punctures notably coarse; legs moderately long, strongly and loosely punctate, as usual more finely and closely on the tibiæ. Length 28.6 mm.; width 8.0 mm. California. A single female specimen from the Levette collection, without more definite record of locality.... **basalis** n. sp.

10—Form elongate-suboval, the elytral apex distinctly bilobed. Surface rather shining, the elytra sometimes strongly alutaceous; head about half as wide as the prothorax, alutaceous, finely, very loosely and equally punctate; antennæ two-thirds longer than the width of head; prothorax about a fourth wider than long, the sides broadly rounded, very obtusely prominent behind the middle and thence oblique and broadly sinuate to the base; surface minutely and sparsely punctate; triangular scutellum about three times as wide as long; elytra three-fourths longer than wide (♂), scarcely three-fifths (♀), a fourth wider than the prothorax (♂), fully two-fifths (♀); surface very smooth, excessively minutely, sparsely punctulate, the remote punctures of the series small; legs rather long, slender. Length (♂ ♀) 23.5 mm.; width 8.6–9.0 mm. Coast regions of southern California. Three specimens. **caudicalis** n. sp.

A—Very much as in the preceding but smaller in size and with more abbreviated prothorax, this being fully a third wider than long; punctures distinctly less fine; elytra a little shorter, the punctuation nearly similar though very slightly more obvious; bilobation of the elytral apex smaller and feebler. Length 21.7 mm.; width 8.5 mm. Arizona (southern). One specimen..... **deserta** n. subsp.

Form nearly similar, the obliquely produced elytral apex not or scarcely at all bilobed at the suture..... 11

11—Elongate, large in size, strongly convex and only moderately ventricose, shining; head fully half as wide as the prothorax, alutaceous, finely, sparsely punctate; antennæ as usual; prothorax large, scarcely more than a fourth

wider than long, the sides broadly arcuate, very obtusely angulate just behind the middle, thence oblique and nearly straight for a long distance to the base, the angles obtuse but not rounded, much more than right; surface with very fine and not dense punctures, gradually a little stronger laterally; elytra almost twice as long as wide or sensibly shorter, extremely minutely, sparsely punctulate, the serial punctures distinct; legs long and slender. Length 23.0–29.0 mm.; width 8.7–10.5 mm. Middle coast regions of California. Eight specimens.....**magna** Lec.

Elongate though a little shorter and with more inflated elytra than in *magna*, feebly shining, generally more or less alutaceous; head somewhat less than half as wide as the prothorax, densely alutaceous, very minutely and loosely punctate, the antennæ as usual; prothorax much shorter, fully three-sevenths wider than long, widest and very obtusely subangulate just behind the middle, the sides thence oblique to the base, the angles acute and very briefly everted, quite different from the form in the preceding species; surface extremely minutely, sparsely punctulate; scutellum notably, transversely arcuato-triangular; elytra two-thirds longer than wide, a fourth or fifth wider than the prothorax, the sides more strongly arcuate than in the preceding; surface smooth, the punctuation invisible; widely separated serial punctures very small; legs long. Length 25.5–29.0 mm.; width 9.2–10.2 mm. California (San Diego). Three specimens.....**obesa** Lec.

Elongate but much less ventricose than in either of the preceding, the angulation of the thoracic sides much sharper and more conspicuous, convex, very feebly alutaceous, the head a little more so, much less than half as wide as the prothorax, the punctures widely separated and extremely minute, barely visible and smaller than in any other species known at present; antennæ in the type nearly twice as long as the width of head, all the joints distinctly elongate, except the first two and the last four; prothorax fully three-sevenths wider than long, the sides angulate just behind the middle, the angle only slightly blunt, thence strongly oblique and distinctly arcuate to the apex, not more oblique but straight to a gradual basal sinuosity, the angles right and sharp; base much wider than the apex, which is feebly sinuato-truncate; surface smooth, the punctuation so minute as to be virtually obsolete; transverse scutellum rather sharply angulate; elytra barely four-sevenths longer than wide, scarcely a fourth wider than the prothorax, oval, gradually produced and with oblique sides posteriorly; surface smooth, the serial punctures small; legs long and slender; abdomen not punctate but with numerous long feeble rugæ. Length 24.0 mm.; width 8.7 mm. California (southern). One specimen.....**antennalis** n. sp.

12—Elytra with deep even sulciform striæ. Notably elongate, convex, deep black, opaculate, the elytra feebly alutaceous, surfaces smooth; head slightly more than half as wide as the prothorax, with sparse and extremely minute punctulation; antennæ about one-half longer than width of head; prothorax just visibly shorter than wide, the sides broadly arcuate, very obsoletely subangulate behind the middle, feebly oblique basally, the basal angles right, the apical broadly rounded; surface with small and well-separated punctures; elytra long, three-fourths longer than wide, a third wider than the prothorax; deeply impressed striæ with very small punctures, the convex intervals smooth; legs long and slender. Length 22.0–27.0 mm.; width 8.6–9.7 mm. Utah (southern) and Nevada (Las Vegas),—Spalding, Weidt and Shantz. Five specimens.....**sulcata** Csy.

Elytra without impressed striæ.....13

13—Base of the prothorax narrower than the apex. Rather stout, moderately convex, deep black, subopaque, the elytra distinctly more shining; head half as wide as the prothorax, with rather strong punctures, close along the

apex, sparse medially; antennæ barely one-half longer than width of head; prothorax large, transverse, slightly over a third wider than long; sides evenly and rather strongly rounded, gradually converging and sinuate basally, the angles slightly blunt; surface moderately but deeply, unusually closely punctate throughout; scutellum transversely triangular; elytra somewhat inflated behind and very obtusely angulate at apex, one-half longer than wide, nearly a third wider than the prothorax; surface minutely and feebly rugulose, punctured like the prothorax but less closely, the strial punctures distinct and distant, about twice as large as the others; abdomen finely rugulose and with very small and well-separated punctures; legs long and slender. Length 23.5 mm.; width 10.0 mm. Idaho (Coeur d'Alene),—J. A. Leyden. One specimen . . . . . **idahoensis** n. sp.

Base of the prothorax about equal in width to the apex or a little wider. 14

14—Prothorax distinctly wider than long; surface smooth. 15

Prothorax subequal in length and width. 16

15—Body moderately ventricose, convex and feebly shining, alutaceous; head scarcely half as wide as the prothorax, extremely minutely, sparsely punctate and more opaculate; antennæ moderate; prothorax a little more than a third wider than long, the sides subevenly rounded, gradually moderately converging but still arcuate basally to an extremely short distance of the right basal angles, this distance shorter than in any other known species; surface even, minutely but not very sparsely punctulate, the punctules scarcely as large and even more distant laterally; scutellum twice as wide as long, arcuately triangular; elytra three-fourths longer than wide, oval, rather gradually angulate behind; surface very smooth, the punctulation obsolete, barely traceable, the serial punctures fine and distant; abdomen alutaceous, impunctate, feebly elongato-rugulose; legs slender, long as usual. Length 24.0 mm.; width 9.2 mm. California (North Fork, Madera Co.). **æqualis** n. sp.

Body more slender, strongly convex, deep black, smooth and rather shining though alutaceous; head evidently more than half as wide as the prothorax, feebly opaculate, minutely and sparsely punctate as usual, more densely so along the apex; antennæ two-thirds longer than the width of head; prothorax rather small, evidently though only about a fifth wider than long, the sides evenly rounded, gradually moderately converging and becoming nearly straight behind the middle to the broad and feeble basal sinuosity, the angles somewhat more than right, rather sharp; surface minutely, loosely punctate, more sparsely toward the sides; scutellum between two and three times as wide as long, triangular, with nearly straight sides; elytra almost twice as long as wide, gradually declivous and pointed behind, nearly two-fifths wider than the prothorax, evenly oval; surface with very fine sparse creases, excessively minutely or obsoletely and sparsely punctulate, the strial punctures distinct and widely separated; abdomen smooth; legs slender and moderately long. Length 21.0 mm.; width 7.5 mm. California (Milpitas, Sta. Clara Co.),—Dr. R. J. Smith. One specimen. **smithiana** n. sp.

16—Surface smooth and impunctate, or never with more than a vestige of excessively minute, sparse punctulation. Body strongly convex and feebly ventricose, rather shining but alutaceous; head fully half as wide as the prothorax, subopaculate; antennæ more than one-half longer than the width of head, the outer joints not at all wider; prothorax rather large, orbicular, as long as wide, the parallel sides evenly and strongly arcuate to the basal angles, which are rapidly everted and very acute; base evidently wider than the apex; surface even and smooth, with only vestiges of excessively fine, sparse punctulation; scutellum nearly smooth, more than twice as wide as

long and evenly triangular; elytra oval, four-fifths longer than wide, only a fourth or fifth wider than the prothorax, rather rapidly and obtusely angulate at apex, the surface smooth and impunctate; punctures of the series moderate but deep and unusually close-set; abdomen nearly smooth; legs slender. Length 22.7–23.0 mm.; width 8.3–8.7 mm. Arizona (Williams), —Wickham.....**rotundicollis** n. sp.

Surface with fine but usually deep and evident punctuation, the prothorax relatively smaller; body more slender.....17

17—Prothorax longer than wide. Body slender, very slightly alutaceous; head distinctly more than half as wide as the prothorax, the punctures rather strong, sparse, gradually smaller and closer anteriorly; antennæ unusually long, nearly twice as long as the width of head, the last four joints inflated; prothorax parallel, the sides evenly and rather strongly arcuate, somewhat rapidly converging and sinuate basally, the angles gradually slightly prominent, sharp; base wider than the apex; surface even, with moderate, deep and well-separated punctures, becoming gradually coarser but not evidently denser toward the sides; scutellum arcuately triangular, not over twice as wide as long; elytra evenly oval, three-fourths longer than wide, two-fifths wider than the prothorax, rather obtuse behind; surface somewhat strongly, subtransversely rugose and with moderately small, well-separated punctures, the rugulosity almost obliterating the series, which are irregular and with very moderate and indistinctly defined punctures; abdomen moderately but closely punctured and feebly rugulose; legs slender, feebly punctured. Length 21.3 mm.; width 7.8 mm. Arizona (southern).....**longicollis** n. sp.

Prothorax never longer, sometimes just visibly shorter than wide; punctuation always evident though not strong.....18

18—Form slightly ventricose, convex, alutaceous, the elytra more shining; head a little more than half as wide as the prothorax, more opaque, finely, loosely punctate; antennæ moderate; prothorax slightly shorter than wide, the parallel sides feebly arcuate, rather rapidly sinuate and converging in about basal third, the angles feebly everted, rather sharp; base subequal to the apex; surface with moderate, close-set punctures, gradually coarser but scarcely closer toward the sides; scutellum very moderate, rectilinearly triangular, about twice as wide as long; elytra oval, rather obtuse at apex, two-thirds longer than wide, fully a third wider than the prothorax; surface shallowly and not densely, subtransversely rugose, somewhat strongly and closely punctate, the series moderately distinct, with the punctures not quite twice as large as the others; abdomen finely, sparsely punctate and finely rugose, somewhat shining; legs moderately long, slender. Length 18.0–21.5 mm.; width 6.5–8.3 mm. Utah (Marysvale; southwestern—Weidt and Miner's Peak—Spalding).....**punctata** Lec.

Form very slender, more nearly subparallel, rather shining throughout; head moderately and loosely punctate, more finely anteriad; antennæ long, only a little less than twice as long as the width of head, the last five joints obtriangular, the seventh elongate; prothorax not quite as long as wide, the sides strongly, evenly arcuate nearly to the base, where they become straight and parallel for a short distance to the right basal angles; base distinctly wider than the apex, the surface with notably fine and well-separated but distinct punctures, gradually a little coarser laterally; elytra elongate and oblong-oval, rather rapidly rounding posteriad, nearly four-fifths longer than wide, less than a third wider than the prothorax; surface very rugose—very much more so than in *punctata*—and with small sparse punctures, those of the series very much larger, deep and distinct; abdomen shining, finely, closely rugose and finely punctulate; legs slender, rather long, finely, not closely punctulate. Length of type 19.0 mm.; width 6.8 mm. New

Mexico (Fort Wingate). With the type are placed two less slender specimens, with nearly the same rugose elytra, but with stronger thoracic punctures; they are 19.7–21.5 by 7.6–7.9 mm. in dimensions and are from the region near Fort Wingate; they were all taken by Mr. Woodgate.

angusta n. sp.

The *dilatata* and *californica* of Mannerheim are different species; the former is smooth and rather more elongate and the latter stouter and with the punctures stronger and much closer, giving it a much less shining aspect; the former inhabits the coast regions, the latter the Sierra country, extending into Oregon; I have no doubt at all that the two names stand for perfectly distinct species; *californica* has the prothorax broader than in *dilatata*. I have been unable to study *rugosa* Linell, but the description indicates something quite different from any that I have observed.

Haplandrus Lec.

Comparatively few species of moderate size and parallel outline alone compose this genus at present. The thoracic apex is quite different in *concolor* or *femoratus* and the *ater* group, being transverse and feebly bisinuate, with rather sharply marked subparallel angles in the former and with broadly rounded angles, separated by a simple sinuation, in the latter. The following species is narrower than *ater*, with the anterior parts duller and more alutaceous and the sides of the prothorax more rectilinear:

Haplandrus subangusta n. sp.—Parallel, deep black and glabrous, shining, the head and pronotum subopaque; head wider than long, with rather prominent eyes and finely and densely punctate; antennæ piceous-black, with rufous basal joint, a third longer than the prothorax, the latter subquadrate, nearly one-half wider than long, the sides parallel and nearly straight, gradually rounding apically; basal angles right, rather sharp; surface even, somewhat finely, loosely punctate; scutellum moderate, flat, smooth, equilatero-triangular; elytra nearly twice as long as wide, parallel and straight at the sides, rapidly rounded at apex, evidently wider than the prothorax; striæ feebly impressed, moderately punctate, the intervals broadly convex and with excessively minute and rather sparse, subobsolete punctulation; scutellar stria with numerous punctures, about half as long as the prothorax; under surface black, shining, subimpunctate, the propleura with distinct, sparse and smooth, even punctures; legs feebly punctate, black and shining. Length 6.6–7.3 mm.; width 2.6–2.8 mm. Louisiana. Two specimens.

Differs from *ater* in its black and not obscurely rufous legs, in the smooth and not rugulose, more sparsely punctate propleura, in the duller prothorax, with straighter sides and finer punctures, and in some other features.

Haplandrus collaris n. sp.—A little larger and stouter, convex, black and shining throughout; head nearly as in *ater*, larger than in the preceding, rather

finely, densely punctate; antennæ but little longer than the prothorax, blackish, gradually rufescent basally; prothorax larger than in the preceding or *ater* and much less abbreviated, only two-fifths wider than long and subequal in width to the elytra, the sides parallel and nearly straight, gradually rounding anteriad; basal angles right but distinctly rounded; punctures rather coarse, loose and somewhat uneven in distribution; scutellum similar; elytra evidently somewhat less than twice as long as wide, the sides straight, gradually rounding at base, rather obtusely rounded at apex; striæ coarse, deeply impressed and sulciform, very coarsely punctate; intervals broadly convex, very minutely, sparsely and subobsoletely punctulate; punctured scutellar stria nearly half as long as the prothorax; under surface and legs black, shining, obsoletely punctulate, the propleura as in the preceding; femora much thicker than in the preceding or *ater*. Length 8.0 mm.; width 3.15 mm. Florida. One specimen.

This species is to be known readily from the preceding and *ater* by its larger and more elongate prothorax, with more rounded basal angles, by its coarser thoracic punctures—especially than in *subangusta*—and by its thicker femora, also by the blacker legs than in either of those mentioned.

Tenebrio Linn.

Nearly all the species of this genus are cosmopolitan, at least to some degree, and this is the case with *obscurus* Fabr., but in the central Rocky Mountain region there is a form which, on the whole, is larger and broader than *obscurus*, and this might receive a subspecific name as follows:

Tenebrio obscurus ssp. **pollens** nov.—Similar in structure, lustre and habitus to *obscurus*, but larger and broader, the prothorax larger and more elongate as a rule. Length 15.5–17.5 mm.; width 5.1–5.6 mm. Utah (Callao) and New Mexico (Jemez Springs). Five specimens.

The general appearance of this form distinguishes it readily from my large series of typical *obscurus*.

Reminius n. gen.

In external appearance the type of this genus very closely resembles *Xylopinus* Lec., but it differs noticeably in its antennal structure and in its larger eyes. The body is parallel, elongate and convex, polished and glabrous, the mentum prominent along the middle and the last palpal joint is broad, almost equilatero-triangular and broadly arcuato-truncate. The antennæ are long and slender, all the joints feebly obtriangular, elongate, flattened, recti-lateral and wholly unlike the thick distal joints of *Xylopinus*. The prothorax and elytra are nearly as in that genus, except that the epipleura virtually attain the elytral tips. The legs are rather long and slender, the femora not at all clavate. The type is the following:

Reminius ocularis n. sp.—Parallel, convex, deep black, shining and glabrous, the under surface, tibiæ and tarsi piceous, the femora black; head nearly three-fifths as wide as the prothorax, very finely punctate, loosely so between the eyes, which are large, much more prominent than the sides before them and separated above by about their own dorsal width, moderately coarsely faceted; antennæ extending slightly behind the prothorax, blackish, with the last joint abruptly testaceous, the third joint between three and four times as long as wide, fifth to tenth equal in width, gradually decreasing in length, the tenth one-half longer than wide, the eleventh slightly narrower, obtusely oblong-oval and twice as long as wide; prothorax a third wider than long, the sides parallel, broadly rounded, somewhat straighter basally, the basal angles right and very sharp, the apical broadly rounded; apex shallowly sinuate and narrower than the base, which is very heavily margined and transverse; surface rather strongly, sparsely punctate, a little more closely but still sparsely peripherally; side margins very fine; median line feebly impressed basally; scutellum well developed, equilatero-triangular; elytra two and a third times longer than wide, about a fifth wider than the prothorax, parallel and nearly straight at the sides, rounding in about apical third, with deeply impressed striæ, coarsely punctate laterally, much less coarsely and more feebly discally; intervals smooth; under surface minutely, sparsely punctate; hind tarsi three-fourths as long as the tibiæ, the first joint not quite as long as the last; claws long and well developed. Length 11.5 mm.; width 3.9 mm. Iowa (Keokuk). One specimen.

Easily recognizable by its general resemblance to *Xylopinus*, but especially by its large eyes and simple antennæ.

Cibdelis Mann.

The species *lævigata* Csy., is flatter than *blaschki*, shorter, more oval and smoother, the prothorax smooth, finely, evenly and loosely punctate; it does not in the least resemble *blaschki* and, if *gibbosa* were a recognizable species, it would naturally be fully as convex as the former, but previously (p. 207) I have published remarks, which would tend to show that it is not to be identified. The two following belong to the *blaschki* section of the genus:

Cibdelis ventricosa n. sp.—Much smaller than *blaschki* but similar in its deep black color and rough sculpture; head about two-thirds as wide as the prothorax, roughly sculptured, the eyes small and nearly flat; antennæ but little longer than the thoracic width, thick, black, the outer joints gradually still thicker; prothorax subglobular, but little wider than long, the sides evenly, circularly arcuate almost to the basal angles, which are finely acute and strongly everted; scutellum small, transversely angulate, polished and nearly smooth; elytra barely more than one-half longer than wide, broadly oval, nearly one-half wider than the prothorax, the sides strongly, evenly arcuate; surface nearly as in *blaschki;* abdomen rather finely but deeply, loosely punctate. Length 10.8 mm.; width 4.4 mm. California (Lake Co.).

Differs from *blaschki* in its much smaller size and more strongly rounded sides of the prothorax, which become more briefly and deeply sinuate at the finely acute and strongly everted basal angles.

Cibdelis cylindrica n. sp.—Subparallel, strongly convex, somewhat resembling *blaschki* in color and sculpture; head three-fifths as wide as the prothorax; eyes similar, the sides before them more broadly rounded; punctures less rugose; antennæ thicker; prothorax as in *blaschki* but relatively somewhat larger and more smoothly punctate; sides similarly feebly sinuate toward the obtuse and blunt hind angles; scutellum similar, transversely triangular; elytra three-fifths longer than wide, only a fifth wider than the prothorax, the sides but feebly arcuate; surface somewhat as in *blaschki*. Length 13.0 mm.; width 5.5 mm. California (locality unrecorded).

This species is more cylindrical than *blaschki*, with relatively wider prothorax and less rounded elytra, the latter with the sculpture smoother, the small tubercles along the strial intervals being smaller and very much feebler.

Eupsophulus Ckll.

This name was given by Cockerell to the preoccupied *Eupsophus* Horn; the genus is very distinctly characterized, not only in general structure but in facies. The typical species, *castaneus* Horn, is common in some parts of Arizona and I have a large series taken by Tucker in the neighborhood of Tucson. The following species is much less elongate and generally of smaller size.

Eupsophulus brevipennis n. sp.—Oblong, convex, feebly alutaceous, dark brown in color, subglabrous, the head and prothorax small, the under surface with very short, sparse and subdecumbent hairs, the elytra with series of short suberect distant hairs; head scarcely three-fourths as wide as the prothorax, finely, rather closely punctate; eyes coarsely faceted, moderate in size and prominence; antennæ rather thick, somewhat longer than the head and prothorax, the joints obtriangular, the third nearly as long as the next two combined; prothorax widest very slightly behind the middle, very nearly as long as wide, the sides subparallel, broadly arcuate, feebly sinuate basally, gradually moderately convergent anteriorly; apex and base feebly arcuato-truncate, the former about three-fourths as wide as the base; punctures rather fine, close-set; scutellum small, slightly transverse, rounded; elytra three-fourths to four-fifths longer than wide, three-fourths wider than the prothorax to nearly twice as wide as the latter, subparallel, feebly inflated posteriorly, obtusely angulate at apex, finely, sparsely punctate, with unimpressed series of distant and but slightly larger punctures; under surface rather strongly punctured, the abdomen very finely and feebly; legs rather long and slender. Length 9.0–10.0 mm.; width 3.4 mm. Arizona (Benson).

The two specimens at hand represent a species differing from *castaneus* in its very much more abbreviated outline and shorter antennæ, the elytra in *castaneus* always being more than twice as long as wide. In both species the hind angles of the prothorax are minutely everted and acute.

Alæphus Horn

The species of this genus appear to be numerous; they are all pallid and with more or less thin integument and are more or less

slender and small in size. I have seen no example of *pallidus* Horn or *puberulus* Fall, but of *gracilis* Fall, I have a specimen from Miner's Peak, Utah; it was described from Oak Creek Cañon, Arizona; *nitidipennis* Fall seems to be the same as *macilentus* Csy., after reading Mr. Fall's description very carefully. The five following species are as yet undescribed:

Alæphus convergens n. sp.—Moderately slender and convex, testaceous throughout, alutaceous, the anterior parts strongly so, glabrous; head very small, only half as wide as the prothorax, a third longer than wide, minutely, loosely punctate, more shining anteriorly, the eyes small, about as prominent as the sides just in front of them; antennæ fully two-fifths as long as the body, rather flattened, gradually a little wider distally, the second joint slightly elongate, the third not quite as long as the next two combined, the last joint oval, slightly shorter but scarcely narrower than the tenth; prothorax one-third wider than long, widest at basal third or fourth, but with broadly rounded sides, which gradually converge to the apex—the latter only four-sevenths as wide as the base—slightly sinuate just behind the apical angles, which are slightly obtuse but distinct, the basal very obtuse and rounded; surface narrowly and just visibly impressed along the middle, more strongly at the sides, sparsely and very minutely punctulate; scutellum subquadrate, feebly, obtusely angulate behind; elytra between three and four times as long as the prothorax and three-fifths wider, parallel, gradually, obliquely rounding in about apical third, finely but strongly, rather sparsely punctate, the punctures very much larger than those of the pronotum; under surface clearer and paler rufous, the legs somewhat slender. Length 6.7 mm.; width 2.2 mm. Utah (Eureka),—Spalding. A single specimen.

This is an entirely exceptional species, unremindful of anything else in the genus, the narrow elongate head and basally inflated prothorax being very peculiar features.

Alæphus madarensis n. sp.—Subparallel, moderately convex, pale and uniform testaceous, subglabrous, the hairs on the abdomen minute; head subtriangular, about as wide as long, four-sevenths as wide as the prothorax; eyes moderate, prominent, widely separated, shallowly sinuate and coarsely faceted, separated beneath by much more than the length of the third antennal joint; first eight antennal joints extending very nearly to basal fifth of the elytra, the remainder missing in the type; joints much elongated; prothorax large, quadrate, a fourth wider than long, parallel, the sides straight in about basal half, very feebly sinuate near the base, gently rounded toward apex, which is truncate and nearly three-fourths as wide as the base, with obtuse and rounded angles, the basal angles right and sharp; surface even, feebly impressed at the sides just behind the middle, moderately densely reticulato-punctate and subobliquely rugulose; scutellum transversely subquadrate, broadly rounded behind; elytra broad and parallel, obliquely rounding in about apical third, three times as long as the prothorax and scarcely two-fifths wider; surface with moderate, deep punctures, coarser than those of the prothorax and separated by fully three times their diameters as a rule; prosternum and propleura finely, strongly and densely punctate, the abdomen very finely and sparsely; legs slender. Length 6.8 mm.; width 2.18 mm. California (North Fork, Madera Co.). One specimen.

Allied to *macilentus* and *gracilis*, differing from the former in its much larger head and more elongate antennæ and from the

latter in its far smaller eyes, feebler and sparser elytral punctures and other characters.

Alæphus gracilicornis n. sp.—Much smaller and more slender, pale testaceous and alutaceous, the elytra more yellowish and shining, with the sparse moderate yellowish hairs very distinct; head small, subtriangular, though broadly obtuse at apex, only a little more than half as wide as the prothorax, finely, closely punctate; eyes rather small, only slightly prominent, remotely separated above, beneath by a little less than a third the total width; antennæ three-sevenths the length of the body, very slender, the second joint distinctly elongate, obconical, the third one-half longer than the fourth, the eleventh gradually pointed, a little shorter than the tenth and but just visibly narrower; prothorax two-fifths wider than long, the sides broadly, subevenly arcuate, becoming gradually parallel in about basal half; apex two-thirds as wide as the base, with obtuse rounded angles, truncate; basal angles distinct, nearly right; surface broadly impressed along the middle in about basal half and broadly along the sides, more narrowly anteriad, the impression disappearing slightly beyond the middle; sculpture coarsely reticuliform; scutellum twice as wide as long; elytra elongate-oval, widest at the middle and with broadly and feebly arcuate sides, gradually narrowing distally, between three and four times as long as the prothorax and only a fourth or fifth wider; punctures very fine, widely separated; prosternum and propleura coarsely but feebly reticulate, the abdomen nearly smooth, polished; legs slender. Length 4.7 mm.; width 1.45 mm. New Mexico (locality unrecorded).

This is the smallest species known to me and may be distinguished very readily by the characters given above, especially the sculpture of the anterior parts and the very slender filiform antennæ.

Alæphus longicornis n. sp.—Elongate, subparallel, rather convex, shining throughout, rufo-testaceous, the erect fine hairs sparse but evident; head slightly more than half as wide as the prothorax, densely and subrugosely punctate; eyes large, separated above by nearly the length of the third antennal joint, beneath by rather more than the length of the fourth joint, prominent and coarsely faceted as usual; antennæ about four-sevenths as long as the body, not very slender, the joints 4–9 increasing very slightly in length, the tenth very little shorter than the ninth, the eleventh much shorter and narrower than the tenth; prothorax two-fifths wider than long, parallel, the sides evenly and distinctly arcuate, minutely sinuate at base, the small angles feebly everted; apical angles broadly rounded; base broadly arcuate, evidently wider than the apex, which is arcuate, just visibly sinuate at the middle; surface strongly, closely and rugulosely punctate; scutellum transverse, broadly rounded at tip; elytra nearly four times as long as the prothorax and three-sevenths wider, parallel, with nearly straight sides, gradually ogivally rounding in almost apical third; punctures unusually coarse, deeply impressed and separated by about two to nearly three times their diameters; prosternum and propleura closely, subrugosely punctate, the abdomen very finely and sparsely; legs moderate; first joint of the very slender hind tarsi much shorter than the remainder. Length 4.8–5.2 mm.; width 1.5–1.6 mm. California (San Diego),—Ricksecker. Two specimens.

Because of the very evident pallid suberect hairs I at first thought that this species might be *puberulus* Fall, from Utah, but a careful comparison with the full and useful description of that species shows that it is quite different.

Alæphus quadricollis n. sp.—Elongate, moderately convex, with short and sparse erect pale hairs, which seem to be easily removed, testaceous; head fully two-thirds as wide as the prothorax, obtuse at apex, densely and subrugosely punctate, not at all shining; eyes large, prominent, coarsely faceted, separated above by a fourth more than the length of the third antennal joint, beneath by slightly less than the length of the fourth joint; antennæ fully four-sevenths as long as the body, moderately slender, the first joint much the thickest, the fourth two and one-half times as long as wide and a little shorter than the fifth, about equal to the tenth but less parallel, the eleventh only two-thirds as long as the tenth and much narrower, oval; prothorax smaller than in any other species, a fourth wider than long, the sides subparallel, broadly and evenly arcuate; basal angles obtuse but not rounded, the apical also obtuse and barely at all blunt; apex rectilinearly truncate, four-fifths as wide as the broadly arcuate base; punctures strong, very dense, deeply and evenly subrugose, without impressions; scutellum rounded behind; elytra fully four times as long as the prothorax and two-thirds wider, parallel, rounding gradually from near the middle; punctures deep and rather strong, separated by two or three times their diameters; prosternum densely punctate, the abdomen finely and sparsely; legs slender; first joint of the hind tarsi much shorter than the remainder. Length 5.6 mm.; width 1.8 mm. Utah (Vineyard),—Spalding.

A small and rather narrow species, with unusually small prothorax and a head relatively large in comparison therewith.

Convergens is so different in general form, and especially in the very different elongate and oblong head, that it may have to serve as the type of a separate genus. I regret not being able to compare *pallidus* Horn, with the other species described thus far, all of which are very much smaller in size.

Polopinus n. gen.

This genus is allied more especially to *Polypleurus* Esch., but it differs in the much larger size of the species, which are polished and not opaque, in the larger and broader, laterally elevated prosternal process, more strongly bent tibiæ, with dense yellow pubescence apically on their lower sides, by the smooth and simply punctate pronotum and longer antennæ. The type is the *Polypleurus nitidus* of LeConte. The two species and two subspecies in my collection are as follows:

Sides of the prothorax obtusely subangulate behind the middle, thence more obliquely arcuate to the apex, which is two-thirds as wide as the base; head elongate, subparallel, with relatively rather small flattish eyes; surface finely, sparsely punctate; antennæ one-half longer than the head; prothorax nearly as long as wide, very finely, loosely punctate, the base heavily margined, feebly bisinuate, the groove along the margination subobsolete at the middle; basal angles acute and everted; scutellum small, transversely triangular; elytra about three-fifths longer than wide, a fifth wider than the prothorax, ogivally rounded behind, having each nine rows of coarse and deep, well-separated and somewhat uneven foveæ; general surface slightly convex, moderately and loosely punctate between the foveæ. Length 15.0–21.0 mm.; width 5.6–7.8 mm. Florida. Seven specimens.....**nitidus** Lec.

A—A little shorter and less convex; elytra with similar rounded, marginally callous humeri; foveæ of the discal rows very much smaller; legs more slender. Length 16.0 mm.; width 6.1 mm. One unlabeled specimen, presumably from Florida. ..... **subdepressus** n. subsp.

B—Oblong, less convex than *nitidus*, the head shorter; prothorax more abbreviated, about a third wider than long; elytra shorter, the foveæ distant, rather large in the outer series, smaller internally, becoming very fine and distant in the three inner rows toward apex. Length 16.5 mm.; width 6.5 mm. Florida (Crescent City). ..... **brevior** n. subsp.

Sides of the prothorax strongly arcuate, not evidently angulate near the middle; size much larger, highly polished; head more quadrate; antennæ longer, three-fourths longer than the head, the last joint more squarely and rectilinearly truncate; prothorax much larger, about a fifth wider than long; apex sinuate, barely four-sevenths as wide as the base, which is broadly margined, the angles everted and acute but relatively much smaller than in *nitidus;* elytra oblong, rounding in apical two-fifths, only very slightly wider than the prothorax and about one-half longer than wide, humeri rapidly rounded, not very callous on the edge; foveæ large and obtusely, deeply impressed laterally, becoming notably small and more close-set in the four inner series; legs moderate in length but slender. Length 20.5–23.8 mm.; width 7.7–9.0 mm. Florida (locality unrecorded). Two specimens. ..... **ingens** n. sp.

It seems highly probable that the two forms recorded above as subspecies may be proved to be specific when more material can afford series; at present we know too little of the special type of variation in this genus to decide.

Iphthimus Truqui

The following species is allied to *opacus* Lec., but is much larger and broader:

Iphthimus salebrosus n. sp.—Broadly suboblong, broadest behind, deep black, roughly sculptured, the interstices slightly shining, alutaceous but not at all opaque, glabrous; head slightly elongate, the straight sides feebly converging from apex to base; punctuation coarse and rugose; antennæ notably thick, the outer joints compactly joined; prothorax fully three-fifths wider than long, widest at apical third, the sides arcuate, becoming gradually feebly sinuate basally, the basal angles rather less than right, acute; base broadly sinuate at each side, rather wider than the feebly sinuate apex, which has broadly rounded angles; basal bead punctate; surface strongly, closely and rugosely punctate; scutellum finely punctate, only a little wider than long, broadly angulate behind; elytra widest at about apical third, scarcely one-half longer than wide, a third wider than the prothorax, the diverging sides nearly straight, broadly rounded at apex; striæ very coarse and abruptly deep, broken into very short lines, the two or three sutural in considerable part entire; abdomen rather finely, densely punctate and with feeble longitudinal rugulosity; legs rather short but slender. Length 21.0 mm.; width 5.8 mm. British Columbia (Metlakatla),—Keen.

Very readily distinguishable from *opacus* by the larger size, broader form, posteriorly wider elytra, alutaceous and not opaque interstices, thicker antennæ, longer neck and many other characters.

The form which I described under the name *lævissimus* is by no means a variety of *sublævis*, and much less of *serratus;* the prothorax is larger and broader than in any of the allies of *serratus* and there are besides many other radical differences.

Cratidus Lec.

But few species of this genus have been discovered thus far, but they seem to be very distinct among themselves; the following is allied somewhat to *osculans* but has a much larger prothorax:

Cratidus ovipennis n. sp.—Black, rather shining, having numerous long erect fulvous hairs; head wider than long, the sides sinuously narrowing behind the moderate eyes, which are but slightly convex; punctures moderately coarse, well separated; antennæ fully one-half longer than the head, the third joint as long as the next two combined; outer joints but just visibly wider; prothorax fully one-half wider than long, widest at the middle, the sides evenly and rather strongly rounded, feebly sinuate near the basal angles, which are rather obtuse, with minute acute apex; base barely at all wider than the apex, which is broadly sinuate, with anteriorly prominent acute angles; basal bead fine; surface strongly, evenly convex, with coarse and deep, well-separated punctures, the interstices smooth but varying in convexity; scutellum short and transverse, smooth; elytra oval, about one-half longer than wide, only about a fifth wider than the prothorax, widest near the middle, the sides broadly arcuate, broadly rounding behind, the apex nearly perpendicular; surface with regular series of coarse, deep and rather close-set punctures, the intervals with smaller but strong, somewhat sparse punctures, which occasionally form lines; serial punctures becoming smaller and feebler toward the sides; abdomen shining but coarsely, deeply and loosely, irregularly punctate; legs short, somewhat thick, sparsely hairy. Length 12.5–16.0 mm.; width 5.5–7.0 mm. California (locality unrecorded). Two specimens.

This species may be distinguished readily from *osculans* by the more elongate and subparallel outline of the body, the prothorax being relatively much larger in *ovipennis*, also in the much more distinct and sharply defined serial punctures of the elytra and in some other characters. The locality of this species is probably near San Diego.

Amphidora Esch.

The members of this genus are loosely clothed with long hairs as in the preceding, but the body is very much smaller in size; the following is allied to *littoralis*, but is much more elongate and subparallel:

Amphidora parallela n. sp.—Elongate, convex, very moderately shining, black, the legs obscure rufous; hairs long, sparse and erect, blackish in color; head and pronotum coarsely, densely and longitudinally, subconfluently punctate; eyes small but very prominent; antennæ one-half longer than the head, the third joint nearly one-half longer than the fourth, the four distal joints moderately thickened; prothorax not quite a third wider than long, parallel, the sides evenly and strongly arcuate; angles all obtuse, the basal broadly rounded; sculpture

coarser than that of the head, the surface even; scutellum short, rounded, closely and rugosely punctate; elytra fully three-fourths longer than wide, not distinctly wider than the prothorax, the parallel sides feebly arcuate, gradually, ogivally rounded behind; surface even, with unimpressed series of very moderate subelongate punctures, a little coarser laterad, the nearly flat intervals with sparse and rather small punctures bearing the long hairs; abdomen coarsely, rather sparsely punctate and with much shorter fine hairs; prosternum densely cribrate. Length 8.0 mm.; width 3.0 mm. California (San Diego). One specimen.

Narrower and more elongate than *littoralis* Esch., with much coarser and more longitudinally confluent thoracic punctures, less elongate erect hairs and with the four distal antennal joints enlarged, not three as in *littoralis*. It is at least subgenerically different from *Amphidora* of the *littoralis* type.

Stenotrichus Lec.

The species are here much narrower and more linear than in *Amphidora littoralis*, under which generic name the type, *rufipes* Lec., was first described. *Amphidora parallela* may constitute a genus intermediate between *Amphidora* and *Stenotrichus*, but I have not determined this at present with such meagre material. The following closely resembles *rufipes*, but differs greatly in the antennæ and in its more transverse prothorax:

Stenotrichus confluens n. sp.—Narrow, convex, the elytra somewhat shining, black, the legs rufous; pubescence long, loose, blackish and erect; head three-fifths as wide as the prothorax, with coarse dense confluent sculpture, the eyes small, transverse and prominent; antennæ a little more than half as long as the body, thick, the three distal joints a little longer and thicker than the preceding and somewhat more finely and densely sculptured, the eleventh as wide as the tenth and longer, somewhat bent, the greater arcuation on the outer side; prothorax a fourth wider than long, the sides parallel and rather feebly arcuate, the angles obtuse, the basal more rounded; base feebly arcuate, the apex truncate; surface even, the punctures coarse, deep and strongly confluent longitudinally; scutellum small, short, rounded and sculptured; elytra not evidently wider than the prothorax, not quite twice as long as wide, parallel, with feebly arcuate sides and gradually rounding apex; surface with rather finely, feebly impressed and moderately strongly punctured striæ, with just visibly convex, sparsely punctate intervals, which alternately become cariniform behind; abdomen shining, rather finely, sparsely punctate, with very much shorter sparse pubescence. Length 6.0–6.2 mm.; width 1.65–1.85 mm. California (San Diego). Two specimens.

Differs from *rufipes* in its slightly less slender form, shorter and more coarsely, confluently punctate prothorax and in having the last three antennal joints thicker; in *rufipes* the eleventh joint is regular and not bent and the alternate strial intervals are prominent throughout the length, a feature which seems to have been overlooked by LeConte in the original description.

Anamphidora n. gen.

This name is here applied to a very small shining species, of slightly ventricose form and polished, feebly sculptured integument, having a few long erect hairs and distally attenuate antennæ. The last palpal joint is in the form of a long right-angled triangle, attached at the right angle. The type may be described as follows:

Anamphidora parvula n. sp.—Highly polished throughout, piceous, the under surface rufescent, the legs rufous; upper surface with long erect sparse hairs; head slightly elongate, two-thirds as wide as the prothorax, very moderately and loosely punctate; eyes moderate and not very convex; antennæ very nearly half as long as the body, rather slender, with joints 3–5 diminishing regularly and rather rapidly in length, the three distal joints rather thinner than the preceding and successively very slightly narrower, subequal in length; prothorax a fourth wider than long, subparallel, the sides moderately arcuate; all the angles somewhat rounded; surface even, sparsely and very moderately punctate; base distinctly wider than the truncate apex; scutellum short, triangular; elytra oval, widest at the middle, barely twice as long as wide, fully one-half wider than the prothorax, with rather moderately impressed sparse punctures and fine unimpressed striæ, in which the punctures are much finer and very close-set; abdomen rather finely, sparsely punctate and with some shorter erect hairs; legs moderate; first joint of the hind tarsi only a little longer than the last, the claws moderately long. Length 5.3 mm.; width 1.85 mm. Mexico (Tepehuanes, Durango),—Wickham. One specimen.

The sides of the prothorax are slightly straighter in basal than in apical half.

Eulabis Esch.

In general habitus the species of this genus resemble each other very consistently, but they differ much in size, outline and in the antennæ; it is highly probable that *Epantius* should be maintained as distinct, as it is very different in facies and sculpture from the others. The following is a rather narrow elongate species:

Eulabis montana n. sp.—Elongate, parallel, moderately convex, dull in lustre, dark brown and glabrous; head four-sevenths as wide as the prothorax, shorter than wide, with oblique straight sides and truncate apex, the punctures small, dense and confluent; eyes small, only feebly convex; antennæ short, thick, about twice as long as the head, the last four joints wider, the eleventh rounded; prothorax transverse, fully two-fifths wider than long, the sides broadly, evenly arcuate; feebly arcuate base a little wider than the shallowly sinuate apex, which has well-rounded angles, the basal sharp, very feebly everted; punctures fine, very deep, densely confluent in long uneven lines; elytra oval, widest at the middle, three-fourths longer than wide, barely as wide as the prothorax; fine and sharply cariniform even ridges distinct, the concave intervals each with a series of moderate and separated punctures; abdomen shining, with deep and even, slightly separated punctures; legs rufescent, rather short and thick. Length 6.7 mm.; width 2.2 mm. California (Eldorado Co.). One specimen.

Larger than *rufipes* and with relatively narrower hind body, thicker and somewhat longer antennæ, stronger abdominal punc-

tures and other marked differences; it is narrower than *crassicornis*, with much finer and feebler punctuation of the legs, but with nearly similar antennæ, though not quite so thick.

Argoporis Horn

This genus is composed of a considerable number of species, but they have been rather inadequately studied. The following is unusually slender in outline:

Argoporis angusta n. sp.—Slender, convex, black and densely alutaceous; under surface piceous, the legs bright red; surface wholly glabrous as usual; head minutely, sparsely punctulate, slightly less minutely toward the eyes, which are small, feebly convex and very short and transverse; antennæ thick, scarcely twice as long as the head, the last four joints slightly thicker, 8–10 increasingly transverse; prothorax as long as wide, widest near apical third, but with the sides feebly arcuate, the basal angles right and distinct, the apical broadly rounded; surface very minutely, sparsely punctulate, only slightly less minutely but more closely narrowly at the sides; scutellum wanting as usual; elytra somewhat more than twice as long as wide, evenly oval, only a fifth or sixth wider than the prothorax, the surface with very feebly impressed series of rather coarse, deep and subperforate punctures; intervals minutely, loosely punctulate; abdomen sparsely, finely punctate; hind femora feebly clavate, with two strong approximate equal teeth on the convexity near apical fourth, this edge medially with a few very small granuliform teeth. Length 11.5 mm.; width 3.2 mm. Texas (near El Paso),—Dunn.

This species may stand alone at the end of the series; it is not at all closely allied to any other known to me at present.

Argoporis lateralis n. sp.—Feebly ventricose, but slightly shining and only moderately convex, somewhat piceous-black, the legs piceous-black; head with the oblique sides obtusely reflexed, the apex broadly arcuate; large epistoma very finely, evenly and closely punctate, the vertex closely, more strongly and in part confluently; eyes not very convex, short and transverse; antennæ thick, about twice as long as the head, with joints 3–5 diminishing gradually in length, the four distal joints moderately thicker as usual; prothorax as long as wide, widest beyond the middle but with feebly arcuate sides, which are slightly more rounded basally, the angles blunt; surface feebly and broadly impressed medially to near the base, minutely, sparsely punctulate, much more coarsely, densely and more or less confluently toward the sides; elytra about four-fifths longer than wide, nearly a fifth wider than the prothorax, the sides evenly arcuate; punctures of the series notably coarse, the four inner intervals only feebly elevated, more cariniform apically, the outer intervals strongly elevated and conspicuous, the general surface not punctulate; abdomen minutely, sparsely punctate, with numerous longitudinal rugæ; lower edge of the hind femora with a high spiniform elevation with truncate apex near apical fourth, the steep inner slope of this spine with two or three minute tubercles; inner edge of the tibiæ serrulate, strongly so on the anterior tibiæ. Length 10.7–12.5 mm.; width 3.5–4.2 mm. Arizona (near Tucson),—Tucker. Seven specimens.

This species also seems to be widely isolated and is not closely related to any other.

Argoporis hebes n. sp.—Moderate in size, convex, subopaque and strongly alutaceous, black, the legs rufous; head moderate, the antennæ rather short and thick, the four transverse outer joints sensibly thicker; eyes short and nearly flat; epistoma very minutely, the rest of the surface but little more strongly, punctulate; prothorax not quite as long as wide, widest subanteriorly, the sides broadly and moderately arcuate, gradually very feebly sinuate at base, the angles acute, never more than narrowly blunt at tip, the apical angles rounded; surface extremely minutely punctured throughout, with a feeble minute indentation a little within the basal angles at base; elytra oval, widest at the middle, barely twice as long as wide, only a fifth or sixth wider than the prothorax; surface with regular and barely at all impressed series of moderate but deep, well-separated punctures, the intervals nearly flat, somewhat convex laterally, very minutely, indistinctly punctulate; abdomen feebly shining, very finely punctate; hind femora with minutely, sparsely punctate and even and feebly arcuate lower edge, except that subdistally there is a series of three or four very minute and inconspicuous serrules. Length 10.5–12.0 mm.; width 3.2–3.8 mm. Arizona (near Tuçson),—Tucker. Eighteen specimens.

Recognizable easily by the feeble sculpture and the almost unmodified hind femora.

Argoporis tibialis n. sp.—More nearly subparallel and larger, moderately shining, black, the legs obscure, the femora bright, red, with the tips feebly obscured; head moderate, very minutely, loosely punctulate, more densely or somewhat more strongly toward the sides; eyes short, flat, rather finely faceted; antennæ thick, the third joint about twice as long as wide, the four outer joints moderately thickened; prothorax slightly although evidently wider than long, widest near apical two-fifths, the sides very moderately arcuate; punctures very minute, sparse and very inconspicuous throughout; elytra elongate-oval, two and a third times as long as wide, having unimpressed series of punctures, very moderate toward the suture, a little stronger but not coarse laterally, where the flat intervals become somewhat distinctly convex; femora very minutely punctulate, the posterior with a large and conspicuous rounded projection at the usual position, the distal slope of the prominence with two small projections; abdomen very finely, sparsely punctate. Length 11.8–12.5 mm.; width 3.7–4.0 mm. Arizona (near Tuçson),—Tucker. Two specimens.

The chief distinguishing character of this species is the exceptional form of the lower protuberance of the hind femora, perfectly similar in the two specimens.

Argoporis tuckeri n. sp.—Subparallel, the elytra not distinctly wider than the prothorax, rather shining, deep black, the femora obscure rufous; head larger than usual, sparsely, very minutely punctate, more strongly near the short eyes; antennæ short, with joints 8–10 strongly transverse, the eleventh pointed, briefly and obliquely ovoidal and not quite so wide as the preceding, the third joint slightly swollen apically and not quite twice as long as wide; prothorax as long as wide, formed as usual, the evenly convex surface sparsely and excessively minutely punctulate throughout; basal fovea near the side angles deep and distinct; elytra twice as long as wide, about equal in width to the prothorax; surface with even series of coarse, deep and perforate punctures throughout, the intervals flat, not at all convex even toward the sides, not evidently punctulate; femora very smooth, the punctulation extremely minute, sparse and feeble, the posterior with the evenly and feebly arcuate lower edge having two abrupt,

erect and moderate, equal teeth, separated by the width of the femora at this point. Length 13.2–13.6 mm.; width 3.85–4.0 mm. Arizona (near Tucson),—J. F. Tucker. Two specimens.

A very distinct species, not only in the subparallel form, but in the rather larger head, extremely minute subobsolete punctuation, especially of the pronotum, and in the simple bidentate hind femora.

Argoporis nitida Csy., has been said to be the same as *rufipes* of Champion. The author sent me a specimen of his series of *rufipes* and the merest glance shows that the two species are distinct; *rufipes* is larger and stouter, with the serial punctures of the elytra much less coarse toward the suture and the hind femora with the three small teeth beneath about of equal size, while in *nitida* the posterior tooth is abruptly two or three times as large as either of the others; it is much more slender in the body than *rufipes* and there are several other palpable differences.

Pseudephalus n. gen.

This genus seems to be allied in general terms to *Ephalus*, though differing profoundly in the sculpture of the elytra. The body is broadly oval and with minute glistening hairs, the head with the epistoma deeply sinuate, the antennæ short and thick, with rather compact 4-jointed club, the prothorax short, with evenly arcuate base from side to side, the scutellum short, broadly triangular, very smooth and shining, contrasting greatly with the rough dull general sculpture; the elytra have even series of rather coarse, deep punctures; the epipleura are narrow, attaining the elytral apex; the last two abdominal sutures are coarse, with narrow and very short coriaceous line medially and the legs short and thick, with small tibial spurs; the tarsi are well developed, the claws slender and moderate. The type and only species is the following:

Pseudephalus brevicornis n. sp.—Broadly oval, obtuse at apex, gradually subangularly narrowed behind, convex, piceous-brown in color throughout and dull, the elytra somewhat shining; pubescence yellowish, consisting of minute and very thick sparse hairs, longer and more conspicuous on the elytra; head transverse, bluntly but strongly angulate at the sides, the transverse eyes deep-set and not very coarsely faceted; antennæ short and thick, not quite as long as the width of head; prothorax twice as wide as the median length, the sides very moderately converging, evenly and moderately arcuate from base to apex and with a sparse fringe of fine, erect hairs, like that of the elytra; basal angles obtuse, not rounded, the apical rounded; apex broadly and deeply, evenly sinuate, about two-thirds as wide as the base; punctures rather fine, close-set and asperulate on the opaque ground; elytra barely visibly longer than wide, about as wide as the prothorax, the sides rounding in about posterior half to the ogival

apex; striæ but slightly impressed and with somewhat coarse, deep and narrowly separated punctures; intervals with strong but moderate, deep and loosely confused punctures; legs thick, coarsely punctate; hind tarsi but little shorter than the tibiæ, slender; under surface coarsely and densely punctate but not opaque, the propleura shining and loosely rugulose. Length 6.7 mm.; width 3.8 mm. Alabama (Baldwin Co.),—Löding.

This species may be recognized readily by the strong sculpture, very short broad glistening pale hairs, smooth scutellum, short antennæ and many other structural features.

SCARABÆIDÆ

Ligyrodes Csy.

The following species was received from Mr. Dawson many months ago:

Ligyrodes dawsoni n. sp.—Oblong, strongly convex, shining, piceous, the elytra, under surface and legs paler, rufous; head about two-fifths as wide as the prothorax, sparsely rugose, with a few strong scattered punctures basally; reflexed apex with the two contiguous prominences acute; antennæ rufous, moderate in proportions; prothorax a little less than one-half wider than long, with rounded basal angles and very moderately converging and arcuate sides; surface strongly and sparsely punctate throughout; scutellum with rather numerous punctures; elytra only a sixth longer than wide, inflated posteriorly and there fully a fourth wider than the prothorax; subsutural and four striæ of the two discal pairs with coarse, shallow and approximate punctures; other punctures sparse, finer toward the sides posteriorly; œdeagus with a very sharp erect spine at each side. Length (♂) 19.5 mm.; width 11.4—prothorax 8.6 mm. Nebraska (Sioux City),—R. W. Dawson.

Differs from *relictus* in the smaller, sharper and more completely contiguous reflexed clypeal prominences, rather coarser pronotal punctures and much less elongate elytra. The pale coloration of my specimen may of course be largely due to immaturity, although there are no special evidences of this.

Aphonus Lec.

The many species of this genus form a rather difficult study, but the following offers an exception, at least in point of size:

Aphonus ingens n. sp.—Very broad, suboblong, strongly convex, slightly dilated behind, shining, deep black; head barely over a fourth as wide as the prothorax, transversely reticulato-rugulose, the reflexed apex rather coarsely, obtusely tridentate; eyes well developed; prothorax two-fifths wider than long, the sides distinctly converging and evenly arcuate throughout; basal angles rather narrowly rounded, the apical sharp; base broadly bisinuate; surface even and coarsely, very loosely punctate, sparsely medio-basally; scutellum elongate, smooth, slightly concave, narrowly rounding at apex; elytra scarcely as long as wide, at about apical third somewhat over a fourth wider than the prothorax; surface with sulciform series of coarse and impressed punctures, the latter smaller

and sparser broadly toward the sides, where there is a double discal series of small punctures; pygidium finely, sparsely punctate, densely and finely rugulose basally; legs rather short. Length 17.2 mm.; width 11.0 mm.

The locality of this species is probably southern Atlantic, but the label is undecipherable. It may be placed near *aterrimus*, but is much larger, the sides of the head before the eyes more prominent and the tibial spurs longer; there are also other differences of note.

Aphonus scutellaris n. sp.—Small, narrower and subparallel, piceous-black, the legs and under surface more rufous; head transversely rugose, obliquely at the sides of the clypeus, a little less than a third as wide as the prothorax, the eyes moderate; apex of the clypeus abruptly reflexed, obtusely trilobed; prothorax not quite a third wider than long, the sides very moderately converging throughout, evenly but moderately arcuate; base feebly lobed medially, the angles rather narrowly rounded; surface sparsely and moderately punctate, densely so near the apex at the sides; scutellum rather wider than long, parabolic, broadly concave medially; elytra only just visibly longer than wide, widest barely behind the middle, only very little wider than the prothorax, having scarcely impressed series of very coarse foveiform impressed punctures, the flanks with about two series of small punctures; pygidium finely, feebly scabrous, smoother apically; legs short and rather slender. Length 12.2 mm.; width 6.8 mm. Wisconsin (Bayfield),—Wickham.

This species may be placed near *tridentatus* Say, which it resembles very much, but it differs in its very much coarser elytral foveæ and in the very different nature of the scutellum, which in that species is elongate and pointed.

Pseudaphonus Csy.

The very limited number of known species in this genus resemble each other rather closely and require care in discrimination:

Pseudaphonus puncticollis n. sp.—Stout, subpyriform and very convex, shining, piceous, the elytra more rufous; head small, between a third and fourth as wide as the prothorax, strongly, densely rugulose, the short reflexed apex straight; elevation at base of the clypeus distinct medially; prothorax slightly more than a third wider than long, widest at two-fifths from base, where the sides are rather strongly arcuate; basal angles broadly rounded, the apical much less broadly; surface coarsely, densely punctate anteriorly, somewhat confluently and rugosely toward the angles, sparsely toward base, with a wide smooth median line in basal half; scutellum as long as wide, triangular, with a fine impressed line; elytra feebly swollen behind, as long as wide, a third wider than the prothorax, having wide and barely at all impressed series of coarse, shallow punctures, which become smaller and deeper near the sides; pygidium rather shining, finely, densely subrugulose, smoother at tip; legs short. Length 14.5 mm.; width 9.0 mm. Colorado (Denver),—Oslar. One specimen.

May be placed near *debiliceps*, but with even smaller head, more broadly rounded thoracic basal angles, stronger apical rugosity

and coarser elytral sculpture, as well as a number of other differential features.

CURCULIONIDÆ

Hormops Lec.

The following species of this remarkable genus is broader than the southern Florida type, *abducens* Lec., and has impressed and not abrupt and groove-like elytral striæ:

Hormops latipennis n. sp.—Body and legs obscure and equally rufous throughout, the pubescence rather short and stiff, dark yellowish in color, a little shorter than in *abducens;* head and beak short and thick, the eyes nearly flat, partially concealed by the ocular lobes; beak short, broad and arcuate, but little narrower than the head, strongly and closely punctate; prothorax fully one-half wider than long, parallel, the sides feebly arcuate; apex evidently narrower than the base, both feebly arcuate; surface even, strongly and rather closely punctate; scutellum small, rounded and somewhat convex; elytra but little over one-half longer than wide, three times as long as the prothorax and a third wider, the the sides parallel, broadly arcuate, obtusely rounded in about apical third, the humeri rather broadly rounded; striæ coarse, impressed, strongly and closely punctured; intervals feebly convex, but slightly over twice as wide as the striæ, very finely, sparsely punctate; abdomen but feebly convex, strongly and closely punctate, the first suture fine, the other three coarse and deep; first two segments as long as the rest of the abdomen, with a very shallow rounded median impression; legs rather short, moderately slender. Length 3.7 mm.; width 1.8 mm. Texas.

Much broader than *abducens* and somewhat larger, with broader elytra and less transverse prothorax.

ADDENDUM

Mr. Leng has informed me recently that the type of *Irichroa* Newm. is the *Cychrus viduus* of LeConte. This invalidates *Megaliridia* Csy., proposed for that species and some allied forms and leaves *andrewsi* and others of that type without special generic identity. I therefore now propose **Steniridia** (n. gen.) as the generic or perhaps subgeneric name of *Cychrus andrewsi* and its analogues.

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